

Al-Baha University

Faculty of Pharmacy

Doctor of Pharmacy (Pharm. D) Program

Clerkship Manual

Advanced Pharmacy Practice Experience (APPE)

This manual was developed and approved
by the Training Unit at the Faculty of Pharmacy

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Policy Statements and Training Guidelines

This manual includes policies, procedures, syllabus, and training guidelines designed to make students and preceptors aware of expectations for the Clerkship. It is designed to optimize the academic experience and ensure the continuing success of the program.

Students are required to sign the following declaration:

I have read the policies and procedures, syllabus, and training guidelines of the Faculty of Pharmacy/Al-Baha University Clerkship Manual. I understand that the affiliated institution is required to provide site-specific training for me pertaining to their facility. I agree to abide by the rules and regulations of the program at all times.

Student Name (in Arabic as passport)

Student Signature

.....

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Student national and University ID No.

Date

.....

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Section-I

GENERAL INTRODUCTION

1. Introduction

The Faculty of Pharmacy/ Al-Baha University was established according to the Royal Order 5088 in 7/8/1432 H aiming to participate in the improvement of the health services and the advancement of the pharmacy profession and to cope with the educational policy of the kingdom.

Faculty Vision

"To be an inspiring and leading faculty of pharmacy, nationally and internationally in pharmacy education, research and building the community knowledge".

Vision



Program Vision

"To excel in pharmacy education that contributes to scientific research and enhances the well-being of the community".

Vision



Faculty Mission

"The Faculty of Pharmacy provides the community with the next generation of competent pharmacists through high-quality curricula that includes high level of education and research to meet the needs and improve the health of the community".

Mission



Program Mission

"Provide high quality distinguished academic pharmacy program to prepare competent pharmacists who prioritize patient-centered care, advance pharmaceutical sciences through research, and positively impact the health and well-being of their communities".

Mission



2. Training Unit

The training unit at the faculty is committed to offering a unique pharmacy practice experience program that gives students immediate and progressively challenging clinical experience along with ensuring the quality and smooth performance of the clinical training program for Pharm. D students. Training is provided at different practice settings according to the students' academic level and year with direct supervision of experienced faculty staff in collaboration with other healthcare professionals at the assigned training sites. The overall goal of the offered training programs is to blend clinical and fundamental basic sciences with an innovative integrated approach.

2.1 Unit Objectives:

- 2.1.1 Acquaint trainees with the standards of pharmaceutical care and practice.
- 2.1.2 Developing the trainees' proficient and individual abilities that help in communicating with patients and colleagues.
- 2.1.3 Preparing trainees to work professionally and learning team working attitudes.
- 2.1.4 Training to help the medical team in developing a coordinated treatment plan intended to guarantee the highest standards of quality and safety for the patient.
- 2.1.5 Acquire fundamental research and critique skills.

2.2 Unit Tasks:

The training unit is responsible for supervising the training of pharmacy students and interns (trainees) throughout their training periods.

Responsibilities include:

Ensuring the availability of suitable vacancies in hospitals, medical centers pharmaceutical companies, and community pharmacies.

- 2.2.1 Preparing lists of qualified students for the specified training programs.
- 2.2.2 Coordinating and conducting administrative tasks, such as: preparation and issuing letters to training students based on the required training site, organizing trainees, training schedule and receiving evaluation forms from designated training sites.
- 2.2.3 Developing uniform evaluation forms rubrics and standards, evaluation and grading.



- 2.2.4 Conducting periodic site visits to improve training quality by monitoring trainees' performance and training sites.
- 2.2.5 Resolving any problems or issues encountered by trainees and referring them to the appropriate unit if necessary.
- 2.2.6 Planning and reviewing the training program policies and guidelines on a regular basis to improve skills that will deliver learning outcomes for students.
- 2.2.7 Reviewing and updating the clinical training manuals.

3. Training Program background

The Clerkship training program requires successful passing of the faculty graduation requirements and lasts for one academic year. This program is prepared to provide academically supervised clinical experiences which will give the students a better knowledge of the most current and appropriate methods of collecting and applying clinical information concerning the therapeutic and toxic effects of drugs. Clinical practice experience in clerkships is a different learning experience than dictated courses.

There will be numerous opportunities to gain an appreciation and understanding of the concept of pharmaceutical care as well as share in the ultimate responsibility for patient care outcomes and good clinical practice. The clinical experiences imparted on students by well-qualified and experienced preceptors will help them be able to decide on their choice of clinical specialty, to continue successfully in their lifelong learning and practice, and to meet their responsibilities as health care practitioners to patients and society.

3.1 Training periods

The program includes ten rotations* (four weeks per rotation), (40 weeks = 1600 contact Hours):

3.1.1 Four Compulsory rotations

- 1) Community pharmacy (not allowed in summer term).
- 2) Ambulatory patient care.
- 3) Hospital pharmacy.
- 4) Internal medicine (Cardiology or pulmonary or endocrinology or GIT or nephrology).



3.1.2 Six elective rotations:

- Internal medicine wards: those that were not covered in the compulsory ones (e.g., Pediatrics, Obstetrics and Gynecology, Infectious Diseases, Neurology and Psychiatry, Oncology and Surgery etc.....).
- Not more than two non-patient-focused rotations (Pharmacy companies, Industrial, SFDA etc.).

* The Accreditation Council for Pharmacy Education. (**ACPE**)

4. Training mission

To provide an experiential learning environment that will assist our students to become confident, caring, ethical pharmacy practitioners with the ability to think critically and apply their knowledge and skills in the best interest of their patients regarding individualized pharmacotherapy planning, intervention, and outcome evaluation. It is the overarching goal of the program for the graduate to be successful in multiple practice environments, build upon the foundation with enrollment into advanced training programs and meet the requirements of the labor market in the Kingdom of Saudi Arabia.

5. Training Objectives

5.1 Management of Disease States:

After successful completion of the clerkship, the student should be able to:

- 5.1.1 Use their unique knowledge and skills to meet patients' drug and health-related needs and to achieve optimal patient outcomes and patient safety in partnership with other health care professionals.
- 5.1.2 Take and record the patient history and record the findings of clinical examination.
- 5.1.3 Interpret the information from the patient's laboratory examination in assessing the disease state (s).
- 5.1.4 Discuss the currently acceptable options of investigation and treatment for the patient's disease state based on the best evidence available.
- 5.1.5 Create an individualized therapeutic plan based on the patient current and past medical history including:



- Therapeutic objectives, with the treatment endpoint.
- Pharmacologic and non-pharmacologic management.
- Follow-up plan.
- Evaluation of therapeutic outcomes.
- Rationalize the use of drugs and resolve drug-related problems.

5.1.6 Discuss potential drug-disease, drug-drug, and drug-dietary problems and make recommendations on optimal drug therapy including:

- Selection of drug (s) or non-drug therapy.
- Dose.
- Route of administration.
- Frequency of administration.
- Duration of therapy.
- Drug dosage adjustment consultation.
- Assessment for drug-drug interactions, drug-food interactions, and drug-disease interactions.
- Assessment of patient's history for allergy or anaphylactic shock.
- Assessment for drug contraindications.

5.1.7 Develop a trustworthy professional relationship with the patient where both parties are interacting in a way where the obligations, expected benefits, and consequences are clearly defined.

5.1.8 Identify and prioritize actual and potential drug therapy problems.

5.1.9 Develop and support the implementation of the therapeutic plan.

5.1.10 Document and share within the circle of care appropriate findings of patient information assessment, recommendations made, and actions taken.

5.2 Patient Monitoring:

After successful completion of the clerkship, the student should be able to:

5.2.1 Monitor daily progress of the patient's disease state (s) and individualized drug therapy based upon relevant laboratory data, physical findings, and subjective findings.



5.2.2 Identify existing adverse reactions and/or treatment failures, provide assessment and recommend updated evidence medicine-based management approaches.

5.2.3 Monitor the patient's progress and assess therapeutic outcomes.

5.3 Laboratory findings:

After successful completion of the clerkship, the student should be able to:

- 5.3.1 Recognize the significance of both normal and abnormal laboratory tests and reports.
- 5.3.2 Interpret the lab findings regarding the patient's disease state (s), diagnosis, and follow-up evaluation.
- 5.3.3 Utilize the lab finding in formulating the individualized drug therapy plan, follow-up evaluation, and identify the drug therapy-related problems.

5.4 Drug Information:

After successful completion of the clerkship, the student should be able to answer drug information queries including:

- 5.4.1 Identifying the true question being asked, followed by a systematic approach to searching for the answer or solutions, and formulation of a thorough and appropriate response.
- 5.4.2 Utilizing drug information resources to answer questions related to drug use and toxicity.
- 5.4.3 Critically evaluating evidence-based drug information when providing an answer to a question.
- 5.4.4 Responding to drug information requests appropriately and on time.
- 5.4.5 Communicating information verbally and in writing.

5.5 Counseling and Education:

After successful completion of the clerkship, the student should be able to:

- 5.5.1 Counsel and educate all assigned patients (and/or significant others) on the appropriate use of their medications including:



- Expected drug effects.
- Possible drug adverse reactions.
- Rationale use of nonprescription medications and herbal products and potential drug-drug interactions and drug-herb interactions.
- Proper Storage of medications.
- Proper use of self-monitoring devices (e.g., glucometers) and appliances to deliver certain medications (e.g., MDI, Diskus, microdroppers, and others).
- Continuing professional development and committing to life-long learning.

5.6 Communication Skills:

After successful completion of the clerkship, the student should be able to:

- 5.6.1 Demonstrate effective communication skills.
- 5.6.2 Communicate effectively with colleagues, patients, supervisors, other health care providers, administrative and supportive personnel to provide community awareness, drug information, and high-quality pharmaceutical care.
- 5.6.3 Demonstrate sensitivity, respect, and empathy when communicating with diverse groups or individuals.
- 5.6.4 Optimize individual and group health and wellness through education and health promotion.
- 5.6.5 Design, implement and evaluate an education plan for individuals and groups.
- 5.6.6 Deliver presentation for clinical issues.

5.7 Ethical, Legal and Professional Responsibilities:

After successful completion of the clerkship, the student should be able to:

- 5.7.1 Apply legal and ethical requirements including governmental and provincial/territorial legislation, policies, by-laws, and standards.
- 5.7.2 Uphold and act on the ethical principle that a pharmacist's primary accountability is to the patient.
- 5.7.3 Demonstrate personal and professional integrity.
- 5.7.4 Demonstrate an understanding of the national health care system and the role of the pharmacist and other health care professionals within it.



5.7.5 Demonstrate an understanding of the importance of and the process of continuing professional development.

5.8 Understanding Management Principles:

After successful completion of the clerkship, the student should be able to:

- 5.8.1 Apply knowledge, principles, and skills of management to optimize patient care and inter-professional relationships.
- 5.8.2 Effectively manage workflow.
- 5.8.3 Understand management principles of pharmacy practice.
- 5.8.4 Interpret and apply the drug utilization, reimbursement, and pharmacoeconomic policies of health care facilities, agencies, and third-party payment plans (e.g., generic substitution, therapeutic interchange, use of formularies, co-payments, deductibles, prescription quantity limits, etc.).
- 5.8.5 Understand and be accountable for the financial aspects.

6. Criteria for selecting training sites for clerkship students

- 6.1 The FP training unit is responsible for surveying and searching for suitable experiential program sites.
- 6.2 The prospective sites are to be visited by members from the training unit to introduce the objectives and activities of the program and get preliminary approval from the site administrator, well before time.
- 6.3 The practice sites must reflect a professional image and meet all standards set by appropriate governmental, regulatory, and accrediting bodies.
- 6.4 Sites should be ideal to allow students exposure to multiple advanced pharmacy services including:
 - 6.4.1 Wards of different clinical specialties to allow students work directly with physicians, nurses, and patients (under supervision) to develop and implement optimal pharmacotherapy care plans for patients in inpatient, ambulatory, and transitional settings.
 - 6.4.2 Hospital Pharmacy (inpatient).
 - 6.4.3 Hospital Pharmacy (outpatient).
 - 6.4.4 IV room.



7. Start of Training

- 7.1 At the beginning of any semester prior to the training period, students who are eligible for enrolling in the clerkship program by successfully fulfilling the specified graduation requirements will be informed via an announcement to register their names and other required information in a registration form provided via the training committee.
- 7.2 Students are responsible for attending a CPR course accredited by the Saudi Heart Association and provide the corresponding certificate (if required by the training site).
- 7.3 The training unit responsible for verifying the correctness of the students' information is included in the registration form.
- 7.4 It is the responsibility of the training unit to implement all necessary administrative arrangements, from finding out and selecting training sites according to availability of training vacancies to following-up of students in coordination with the concerned training bodies, whether by regular visits, telephonic or written communication to improve and raise the level of training through feedback.
- 7.5 To facilitate the process of students' distribution among training sites, students are ordered descendingly according to their GPAs and are required to submit a form with training sites options arranged as: first, second, third and fourth choices (According to the vacancies at the training sites).
- 7.6 The training unit then begins sending requests letters to the selected training sites giving priority of the first choice to students with higher GPAs. After receiving the approval from the training sites, students are allowed to start training after getting their enrollment letters from the training unit.
- 7.7 A workshop will be conducted to the students before the start of their training period to explain various training rules, instructions...etc. and a training manual will be available to guide them through the whole training period.
- 7.8 No student can start clerkship unless he/she obtains a letter from deanship of admission and registration certifying he/she has met all graduation requirements.
- 7.9 No modifications are allowed once distribution lists are issued. If for any reason a student wishes to change his training site; he/she has to inform the training unit two



month prior, a substitute has to be available and respective department heads approval has to be obtained. Replacements are limited to the lowest possible level.

7.10 Students are not allowed to delay joining his/her clerkship period for more than six months from the date he/she has fulfilled graduation requirements.

7.10.1 Students may request postponement of clerkship for one semester or more if approved by the training unit. Missed rotation can be made up when all other mandatory rotations have been completed.

7.10.2 If the delay period is longer than 6 months but less than a full year, the student has to retake a qualifying exam before starting his/her training period.

7.10.3 If a student interrupts his/her training for a valid reason for less than 6 months he/she will be required to make up the absence at the end of clerkship period.

7.10.4 Community pharmacy rotations cannot be started in the summer semester due to unavailability. Instead, the student can undertake his /her community pharmacy rotation throughout other semesters.

7.10.5 If a student fails to pass one or more of the four terms of the clerkship training program, he/she will be compelled to make up the failed term at the end of the training period.

7.11 Students should sign all necessary consent forms before starting the training program.

7.12 It is the responsibility of the student to prove the start of the training from the first day of each semester or rotation through the training period by filling out the designated form (Appendix XV) and having it signed and stamped by the Director of the Training Unit or the Director of the Academic Affairs Department in the hospital, who in turn sends it to the Training Unit in the Faculty of Pharmacy.

7.13 If the student discontinues the training, the entity responsible for the training must inform the training unit directly through official e-mails.

7.14 Students who successfully completed the training will be forwarded to the Deanship of Admission and Registration for final approval and for issuing of graduation certificates.



8. The Preceptor

The preceptor is a qualified professional (employed pharmacist / clinical pharmacist) to provide support and guidance, follow up on student training activities and observe and judge all aspects of a student's academic performance including demonstrated knowledge, technical and interpersonal skills, attitudes and professional character. The preceptor facilitates communication and collaboration between student pharmacists and other members of the health care team, including doctors, nurses, social workers, and lab technicians.

8.1 Qualifications and Responsibilities of the Preceptor:

8.1.1 Preceptor for the community, hospital and non-patient-focused rotations must possess a Bachelor of Pharmacy degree (Pharm.B. or Pharm.D.).

8.1.2 Preceptor qualifications for the clinical rotations must meet one of the followings:

8.1.2.1 Pharm. D.

8.1.2.2 Master's degree in Clinical Pharmacy (or a related field).

8.1.2.3 Accredited PGY-1 (Post-graduate Year One) or PGY-2 residency program.

8.1.3 Preceptor must be a licensed pharmacist in Saudi Arabia.

8.1.4 Preceptor should have a minimum of two years of experience in the field.

8.1.5 Preceptor should serve as a positive role model for students.

8.1.6 The preceptor should reflect in appearance, attitude and behavior, the highest standards of professional clinical pharmacy practice.

8.1.7 The preceptor should be familiar with the methods, goals, and objectives of the pharmacy clerkship program and ensure that clerkship goals and objectives are met.

8.1.8 The preceptor should consistently show a constructive respectful and positive attitude toward fellow practitioners and other health care professionals.

8.1.9 The preceptor should give the student the mutual respect and patience needed to ensure an optimal learning experience.

8.1.10 The preceptor should carry the responsibility of teaching and mentoring the students, stimulating the student's interest in all aspects of the practice.

8.1.11 The preceptor should assess the student's competence through observation and assessment.



8.1.12 The preceptor should review the student's progress periodically and inform students of weaknesses as early as possible.

8.1.13 Criticism should be constructive, supportive, and private.

8.1.14 The Preceptor should indoctrinate the student pharmacist with the principles of professional ethics by deeds and words.

8.1.15 The Preceptor must keep in mind that fair and constructive evaluation of the student pharmacist's ability to perform designated activities is a serious responsibility, which affects the student pharmacist's progress and performance as a future practitioner.

8.2 Preceptor training/orientation:

8.2.1 Orientation and training programs are to be designed and implemented for new/prospective preceptors, from FP or from external sites regarding program outcomes, objectives, activities, monitoring and assessment of students during the program.

8.2.2 For preceptors inside Al-Baha region, an onsite periodic meeting is held at the beginning of every semester in the Faculty of Pharmacy/Al-Baha University.

8.2.3 For those outside Al-Baha region, an online periodic meeting is held at the beginning of every semester as well.

8.2.4 Moreover, the below documents are sent by e-mail to the assigned training sites:

8.2.4.1 Clerkship manual.

8.2.4.2 Clerkship course specifications.

8.2.4.3 General instructions.

8.2.4.4 Means of communication.

9. General Rules for Students

9.1 Code of conduct:

9.1.1 The student must exhibit a professional appearance in both manner and dress and must adhere to the standards of dress and behavior as specified by the hospital to which he/she is assigned.



- 9.1.2 Students will wear Al-Baha University identification card or specific identification card issued at the training site at all times while at experiential sites and should introduce it to the authorities when and where asked to do so.
- 9.1.3 Make-up – Should be natural and inconspicuous.
- 9.1.4 Jewelry – Excessively large jewelry is unacceptable.
- 9.1.5 The student is obligated to respect and protect all confidences revealed during clerkship including, but not limited to, pharmacy records, medical records, patient information, fees systems, professional policies, and all proprietary information.
- 9.1.6 The student should recognize that the optimal learning experience requires commitment, mutual respect, and courtesy between all staff members and students.
- 9.1.7 The student should adhere to the work schedule as determined by the training committee/hospital according to the faculty curriculum and send it to the faculty of pharmacy in the first week of each semester.
- 9.1.8 The student is encouraged to communicate with physicians, nurses, other health care professionals, and patients, but should first discuss any communications involving professional decisions with the preceptor.
- 9.1.9 The student is responsible for submitting the needed reports for each rotation.
- 9.1.10 The student should view all advice and direction from preceptors as a constructive part of the learning process.
- 9.1.11 The student should never publicly question the advice or direction of the preceptor but should discuss any disagreements in private.
- 9.1.12 The student should never work without the supervision of the assigned preceptor.
- 9.1.13 The student should demonstrate professional honesty and act to uphold professional standards of practice and codes of ethics.
- 9.1.14 Communication: Student must ask, reply and respond to any official e-mails.



9.1.15 Plagiarism:

9.1.15.1 All tasks given to students must be submitted without any evidence of plagiarism, especially when it involves copying work from other students, websites, scientific journals, etc.

9.1.15.2 The SafeAssign feature on the Rafid Learning Management System through Blackboard determines the maximum permissible similarity percentage as 20%.

- If the plagiarism percentage exceeds 20%, a 0 will be assigned with no possibility of resubmission and an academic misconduct report will be sent to the Vice Dean for Academic Affairs with all supporting documents attached.
- In the event of repetition, a grade of F (Fail) will be recorded for the student in the course, and a report of academic misconduct will be sent to the Vice Dean for Academic Affairs, with all supporting documents attached.

9.2 Student's Daily Activities:

9.2.1 Attend daily rounds and morning meetings with the assigned medical team.

9.2.2 Attend the inpatient departments related to his/her clerkships.

9.2.3 Maintain rotation activity log.

9.2.4 Meet the preceptor daily for any potential discussion which may include:

9.2.4.1 Giving informal oral presentations of assigned patients.

9.2.4.2 Provide daily updates on patients that have been followed.

9.2.5 Conduct patient interviews (if feasible) to obtain drug history.

9.2.6 Maintain follow-up of patients (if feasible).

9.2.7 Not to attempt any direct consultation to patients alone.

9.2.8 Deliver any information about the drug, if the preceptor asks for it, but don't volunteer or comment on any issues not asked for.

9.2.9 Attending all other beneficial activities added by the rotation preceptors.



9.3 Student expectations:

- 9.3.1 The student will maintain professional conduct at the rotation site.
- 9.3.2 The students will be on time every day.
- 9.3.3 No personal calls or text messaging during the clinical rotation are allowed.
- 9.3.4 The student will be well prepared for topic discussions and case presentations with the preceptor.
- 9.3.5 As much as possible, the student will attempt to find answers to questions independently, and then discuss the information found with the preceptor to determine together the best course of action for the clinical situation.

9.4 Prerequisites for all rotations:

- 9.4.1 Completion of all required core curriculum courses in the professional years.
- 9.4.2 Submission of a completed Immunizations record before the start of the clinical rotations and to be completed if not.
- 9.4.3 Completion of physical examination before the start of the clinical rotations.

9.5 Policies regarding absence during rotations:

- 9.5.1 Students are required to log 8 hours (8:00 am – 4:00 pm) daily. Attendance is required for all rotations; students are responsible for adhering to the schedule.
- 9.5.2 Any absences (medical or personal reasons, etc.) are to be permitted by the training unit only if the preceptor is notified and approves (see Appendix II).
- 9.5.3 All absences (for any reason, with the exception of an approved holiday) must be made up.
- 9.5.4 Failure to complete required duty days, unapproved absences, or absences for reasons other than required or emergency purposes will result in incomplete pass requirements.
- 9.5.5 It is the responsibility of the training site to inform the training unit at FP in case of student's dropping out for the whole training period via the provided official email.



10 Students' Evaluations

10.1 Students will be evaluated equally (50:50) by both the FP (faculty members from department of clinical pharmacy) and preceptors at the training sites. Evaluation will be according to the following:

10.2 At the end of each semester, the student must attain a combined "PASS" grade of 75% from the FP and the training site.

10.3 The FP (Faculty members from department of clinical pharmacy):

	Type of assessment	Assessment tool	Comments
10.3.1	Monthly Formal case Presentation according to an announced schedule.	<i>Appendix VII Rubric form B (30% of the total evaluation) (For overall evaluation in each semester, the average will be taken for all rotations)</i>	<i>For trainee students in Al-Baha region's hospitals, the presentation will be on site at the FP. For those outside Al-Baha region's hospitals the presentation will be online at Rafid platform.</i>
10.3.2	Monthly Two Reports of written cases as per the rotation.	<i>Annex XI Pharmaceutical Care Database Form (PCDF) (20% of the total evaluation). (For overall evaluation in each semester, the average will be taken for all rotations).</i>	<i>Submitted by students on Rafid platform.</i>
10.3.3	<i>Students are provided with a booklet to guide in preparing the formal case presentations and PCDF (attached).</i>		

10.4 Evaluation by Preceptors:

Preceptors will evaluate students according to forms provided from the FP training unit based on the type of rotation as follows:



10.4.1 Rubric Form A (hospital wards) (Appendix VI); Assessment Form for Selected Site-Specific Rotation.

10.4.2 Rubric Form C (Appendix VIII); Assessment Form for Community Pharmacy Rotation.

10.4.3 Rubric Form D (Appendix IX); Assessment Form for non-patient focused rotations.

10.4.4 Rubric Form E (Appendix X); Assessment Form for Hospital Pharmacy Rotation.

10.5 Students are responsible for reminding preceptors to send the assessment form one week before the end of the training period.



SECTION-II

SYLLABUS FOR ADVANCED PHARMACY

PRACTICE EXPERIENCE (APPE)

11. Training rotations

11.1 Cardiology

11.1.1 Purpose:

The purpose of this rotation is to allow the student to develop baseline drug information skills in cardiovascular medicine. By the end, the student will develop pharmacotherapeutic skills in the identification and resolution of drug therapy problems in critically ill cardiology patients as well as non-acute cardiology patients.

11.1.2 Goals:

11.1.2.1 Establish collaborative professional relationships with members of the health care team.

11.1.2.2 Collect and analyze patient information.

11.1.2.3 Improve the student's knowledge of commonly encountered cardiovascular disease states and their appropriate pharmacotherapy.

11.1.2.4 Design evidence-based therapeutic regimens.

11.1.2.5 Develop evidence-based monitoring plans.

11.1.2.6 Monitoring and evaluating patients' progress.

11.1.3 Requirements of learning experience:

11.1.3.1 Required hours.

In most cases, the student will need to be present from 8:00 AM to around 4:00 PM. These hours may vary depending upon the efficiency of the student, other activities that may occur during the day, as well as non-rotation responsibilities.

11.1.3.2 Required assignments:

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.



11.1.3.3 **Required presentations.**

Presenting one short presentation on a topic to be decided by the student with the consultation of the preceptor.

11.2 Pediatrics

11.2.1 Purpose:

The purpose of this rotation is to allow the student to gain an understanding of the role of a clinical pharmacist in a pediatric setting.

11.2.2 Goals:

- 11.2.2.1 Designing or modifying therapeutic regimens.
- 11.2.2.2 Identifying therapeutic goals and designing optimal therapeutics plans.
- 11.2.2.3 Recommending or communicating a therapeutic plan to team members.
- 11.2.2.4 Following up and monitoring the effects of a therapeutic plan or regimen.
- 11.2.2.5 Providing drug information and in-service education to team members.
- 11.2.2.6 Providing pharmacokinetic consultations and dose adjustment.

11.2.3 Requirements of learning experience:

11.2.3.1 **Required hours.**

In most cases, the student will need to be present from 8:00 AM to around 4:00 PM. These hours may vary depending upon the efficiency of the student, other activities that may occur during the day, as well as non-rotation responsibilities.

11.2.3.2 **Required assignments:**

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.

11.2.3.3 **Required presentations.**

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.3 Emergency medicine

11.3.1 Purpose:

The purpose of this rotation is to help students become familiar with the key skills utilized as a clinical pharmacist in the Emergency Department (ED).



11.3.2 Goals:

11.3.2.1 Outline the workflow and pharmacy operations in the emergency department.

11.3.2.2 Demonstrate ability to accurately and safely interpret medication orders, including identification and resolution of problems, formulating the specified optimal plan for each admitted urgent clinical case.

11.3.2.3 Discuss pharmacotherapeutic topics and issues in the emergency medicine setting as detailed in the potential topic's component.

11.3.3 Requirements of learning experience:

11.3.3.1 Required hours

In most cases, the student will need to be present from 8:00 AM to around 4:00 PM. These hours may vary depending upon the efficiency of the student, other activities that may occur during the day, as well as non-rotation responsibilities.

11.3.3.2 Required assignments:

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.

11.3.3.3 Required presentations

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.4 Infectious diseases

11.4.1 Purpose:

The purpose of this rotation is to allow the student to gain experience in appropriate empiric and definitive utilization of antimicrobial agents in the inpatient population.

11.4.2 Goals:

11.4.2.1 Review and assess each patient's pharmacologic regimen for an appropriate indication, dose, route/method of administration, and duration of therapy.

11.4.2.2 Identify and resolve any therapeutic duplications, unintended drug interactions, or adverse events.

11.4.2.3 Utilize patient-specific factors and evidence-based medicine to design a therapeutic regimen likely to result in the desired outcome.



11.4.2.4 Appropriately monitor safety and effectiveness of drug therapy.

11.4.3 Requirements of learning experience:

11.4.3.1 **Required hours**

In most cases, the student will need to be present from 8:00 AM to around 4:00 PM. These hours may vary depending upon the efficiency of the student, other activities that may occur during the day, as well as non-rotation responsibilities.

11.4.3.2 **Required assignments:**

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.

11.4.3.3 **Required presentations**

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.5 Nephrology

11.5.1 Purpose:

The purpose of this rotation is to allow the student to develop and integrate the knowledge required to provide direct nephrotic patient care as a member of the health care team.

11.5.2 Goals:

11.5.2.1 Relate knowledge of pharmacology, pharmacokinetics, pharmaceuticals, and evidence-based therapeutics to patient-specific clinical findings to make appropriate patient-specific drug therapy recommendations.

11.5.2.2 Acquire and utilize knowledge of safe medication practices to manage and improve medication use for patients.

11.5.2.3 Assess dosage regimen and make dose adjustments according to renal functions.

11.5.2.4 Identify, justify, and prioritize a list of patient-specific drug therapy problems.



11.5.3 Requirements of learning experience:

11.5.3.1 **Required hours**

In most cases, the student will need to be present from 8:00 AM to around 4:00 PM. These hours may vary depending upon the efficiency of the student, other activities that may occur during the day, as well as non-rotation responsibilities.

11.5.3.2 **Required assignments:**

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.

11.5.3.3 **Required presentations**

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.6 Pulmonary

11.6.1 **Purpose:**

The purpose of this rotation is to develop an understanding of pharmacotherapy for patients with primary lung disease who are admitted to the inpatient medical wards.

11.6.2 **Goals**

11.6.2.1 Develop the ability to effectively gather information and communicate with patients and health care practitioners.

11.6.2.2 Present cases and discuss the management of patients with various pulmonary diseases.

11.6.2.3 Discuss pathophysiology and management of patients with asthma and COPD.

11.6.2.4 Discuss the pharmacotherapy of the various respiratory diseases including pharmacokinetics, adverse events, and cost-benefit data.

11.6.2.5 Educate a patient on the proper use of aerosolized therapy (e.g.: MDI, turbo-inhalers, Diskus, and others).



11.6.3 Requirements of learning experience:

11.6.3.1 Required hours

In most cases, the student will need to be present from 8:00 AM to around 4:00 PM. These hours may vary depending upon the efficiency of the student, other activities that may occur during the day, as well as non-rotation responsibilities.

11.6.3.2 Required assignments:

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.

11.6.3.3 6.3.3 Required presentations

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.7 Endocrinology

11.7.1 Purpose:

The purpose of this rotation is to allow the students to gain experience and develop skills in various roles in which a pharmacist contributes to patient care in the endocrinology setting.

11.7.2 Goals:

11.7.2.1 Acquire both general medical knowledge, and specialty-specific knowledge necessary to function as a competent member of the health care team.

11.7.2.2 Develop a rationale based therapeutic plans on a thorough understanding of the pathophysiology of:

- a. Diabetes mellitus.
- b. Adrenal hyper and hypofunction.
- c. Pituitary and hypothalamic hyper and hypofunction.
- d. Thyroid and Parathyroid hyper and hypofunction.

11.7.3 Requirements of learning experience:

11.7.3.1 Required hours

In most cases, the student will need to be present from 8:00 AM to around 4:00 PM. These hours may vary depending upon the efficiency of the student, other activities that may occur during the day, as well as non-rotation responsibilities.



11.7.3.2 **Required assignments:**

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.

11.7.3.3 **Required presentations**

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.8 Obstetrics and Gynecology

11.8.1 **Purpose:**

The purpose of this rotation is to provide the student with an opportunity to acquire basic knowledge and skills in obstetrics and gynecology.

11.8.2 **Goals:**

11.8.2.1 Take an OB/GYN history.

11.8.2.2 Be familiar with screening recommendations for primary care of female patients.

11.8.2.3 Discuss the pharmacotherapy of common OB/GYN-related problems.

11.8.2.4 Respect and protect the bond of trust and confidentiality between the pharmacist and patient.

11.8.2.5 Be sensitive to the cultural, religious, and socioeconomic issues that impact the patient's experience of health and illness.

11.8.3 **Requirements of learning experience:**

11.8.3.1 **Required hours**

In most cases, the student will need to be present from 8:00 AM to around 4:00 PM. These hours may vary depending upon the efficiency of the student, other activities that may occur during the day, as well as non-rotation responsibilities.

11.8.3.2 **Required assignments:**

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.

11.8.3.3 **Required presentations**

Presenting one short presentation on a topic to be decided by the student and the preceptor.



11.9 Oncology and Surgery

11.9.1 Purpose:

The purpose of this rotation is to develop an understanding of pre & post-operative pharmacotherapy management of the patient with an acute general surgical problem and/or cancer.

11.9.2 Goals:

11.9.2.1 To provide patient care that is appropriate, and effective for the patient's problems.

11.9.2.2 To discuss the risk/benefit of recommended treatments.

11.9.2.3 To respond to patients' needs.

11.9.2.4 To respect patient privacy.

11.9.2.5 To assess and manage side effects of chemotherapy.

11.9.2.6 Management of the hazards and high alert medications.

11.9.3 Requirements of learning experience:

11.9.3.1 Required hours

In most cases, the student will need to be present from 8:00 AM to around 4:00 PM. These hours may vary depending upon the efficiency of the student, other activities that may occur during the day, as well as non-rotation responsibilities.

11.9.3.2 Required assignments:

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.

11.9.3.3 Required presentations

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.10 Neurology and Psychiatry

11.10.1 Purpose:

The purpose of this rotation is to facilitate student learning and critical thinking skills in the neurology and psychiatry setting.

11.10.2 Goals:

11.10.2.1 Describe the symptomatology of the various disease states encountered.



11.10.2.2 Analyze the physical findings of the patient's conditions.

11.10.2.3 Apply for evidence-based medicine.

11.10.2.4 Formulate a therapeutic plan for medical condition as well as alternative plans.

11.10.2.5 Monitor patient outcomes.

11.10.3 Requirements of learning experience:

11.10.3.1 **Required hours**

In most cases, the student will need to be present from 8:00 AM to around 4:00 PM. These hours may vary depending upon the efficiency of the student, other activities that may occur during the day, as well as non-rotation responsibilities.

11.10.3.2 **Required assignments:**

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.

11.10.3.3 **Required presentations**

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.11 Ambulatory patient care

11.11.1 Purpose:

The ambulatory care setting involves interprofessional communication and collaboration to provide acute and chronic patient care that can be accomplished outside the inpatient setting.

11.11.2 Goals:

11.11.2.1 Enhancing patients' outcomes.

11.11.2.2 Decreasing healthcare costs and promoting disease prevention.

11.11.2.3 Compensation for the shortage of primary care physicians if pharmacists are given the necessary privileges to engage as health care providers.



11.11.3 Requirements of learning experience:

11.11.3.1 Required hours:

In most cases, the student will need to attend 8 hours from 8:00 AM to around 4:00 PM. These hours may vary depending upon the efficiency of the student, other activities that may occur during the day, as well as non-rotation responsibilities.

11.11.3.2 Required assignments:

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.

11.11.3.3 Required presentations:

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.12 Community Pharmacy

11.12.1 Purpose:

This rotation will primarily concentrate on patient care services and, secondarily, on patient-focused dispensing activities. The assessment, resolution, and prevention of medication-related concerns, including general medical conditions and drug treatment management.

11.12.2 Goals:

- 11.12.2.1 Reading and explanation of prescriptions for completeness and accuracy.
- 11.12.2.2 Taking part in patient care tasks at a community pharmacy.
- 11.12.2.3 Show professionalism in providing all patient-oriented pharmaceutical services.
- 11.12.2.4 Recognizing, addressing, and avoiding medication-related issues.
- 11.12.2.5 Performance of accurate calculations to dispense and compound medications if applicable.
- 11.12.2.6 Using the best resources available to provide patient counseling or respond to inquiries about medications.
- 11.12.2.7 Providing precise and pertinent medical and drug information to patients and pharmacists.



11.12.2.8 Identify and practice the relevant laws and standards as pertain to institutional pharmacists.

11.12.2.9 Developing effective communication skills with patients and preceptors.

11.12.2.10 Reflecting on the degree of professionalism displayed by practitioners at the site.

11.12.2.11 Recalling and conducting effective counseling on prevention and treatment of common chronic diseases in the national community.

11.12.3 Requirements of learning experience:

11.12.3.1 **Required hours**

The student will need to attend 8 hours from 8:00 AM to around 4:00 PM or as per the pharmacy training program.

11.12.3.2 **Required assignments:**

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.

11.12.3.3 **Required presentations:**

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.13 Hospital pharmacy

11.13.1 Purpose:

This rotation will mainly focus on learning the roles and responsibilities of every staff member in the inpatient and outpatient hospital pharmacies. Students in this rotation should gain non-clinical experience that includes the medication use process and systems-based experience.

11.13.2 Goals:

11.13.2.1 Understand the organizational structure and role of the hospital pharmacy department, as well as the activities of pharmacy personnel in medication management and patient safety.

11.13.2.2 Demonstrate the ability to perform basic pharmacy operations such as receiving and processing medication orders, pharmaceutical dispensing, and basic patient counseling.



- 11.13.2.3 Understand and familiarize with processing of unit dose systems, handling of near expiry medications, disposal of expired medications, and handling of high alert medications.
- 11.13.2.4 Prepare and dispense controlled and non-controlled medications under the direct supervision of a pharmacist, following existing standards of practice and the health system's policies and procedures.
- 11.13.2.5 Prepare and dispense intravenous medications under the direct supervision of a pharmacist, following existing standards of practice and the health system's policies and procedures.
- 11.13.2.6 Have actual hands-on experience in making extemporaneous pharmaceutical compounds specified to an individual's needs.
- 11.13.2.7 Utilize the available primary, secondary, and tertiary references on site to respond to drug information questions.
- 11.13.2.8 Learn the procedures of reporting medication errors and adverse drug events in the hospital.
- 11.13.2.9 Understand inventory control, purchasing procedures, and storage for controlled and non-controlled medications in the hospital setting.
- 11.13.2.10 Understand the management of a hospital's formulary and how non-formulary requests, including patients' personal medications, are addressed.
- 11.13.2.11 Understand the functional role of The Pharmacy and Therapeutics Committee and other professional committees in the hospital.
- 11.13.2.12 Demonstrate the ability to interact verbally and in writing with healthcare providers and patients by gathering, organizing, and appropriately recording information.

11.13.3 Requirements of learning experience:

11.13.3.1 **Required hours**

The student will need to attend for 8 hours from 8:00 a.m. to around 4:00 p.m., or as per the pharmacy training program.

11.13.3.2 **Required assignments:**

At least two detailed case reports are to be handed to the preceptor at the end of the rotation.



11.13.3.3 **Required presentations:**

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.14 Non-patient-focused rotations (Pharmaceutical companies, Pharmacovigilance, etc.)

11.14.1 **Pharmaceutical companies:**

11.14.1.1 **Purpose:**

To improve the student's knowledge of the tasks, obligations, and chances available to educated pharmacists working in pharmaceutical production facilities and companies.

11.14.1.2 **Goals:**

11.14.1.2.1 Define terms used in pharmaceutical manufacturing facilities such as QA, GMP, and QC.

11.14.1.2.2 Describe the GMP specifications used to manufacture pharmaceuticals.

11.14.1.2.3 Analyze the health and safety procedures at the factories that manufacture pharmaceuticals.

11.14.1.2.4 Recognize how marketing, post-marketing monitoring, and pharmacovigilance affect products used in the healthcare sector.

11.14.1.2.5 Enhance communication skills and other advanced professional and interprofessional abilities.

11.14.1.2.6 Co-ordinate visit cycles with co-detailing representative colleagues to maximize doctor coverage and impact.

11.14.1.2.7 Collect and record information relevant to customer targeting.

11.14.1.2.8 Analyze territory product performance and market data on a regular basis and propose action plan to area manager.

11.14.1.2.9 Ensure adequate preparation and follow-up of specific training modules (medical, product, selling skills etc.).

11.14.1.3 **Requirements of learning experience:**

11.14.1.3.1 **Required hours:**

The student will need to attend the assigned hours as per the training program.



11.14.1.3.2 **Required assignments:**

The student is required to submit a reflexive essay by the end of the rotation to the FP training unit.

11.14.1.3.3 **Required presentation:**

Presenting one short presentation on a topic to be decided by the student and the preceptor.

11.14.2 **Pharmacovigilance and medication safety:**

11.14.2.1 **Purpose**

This rotation focuses on enabling students to learn and perform pharmacovigilance activities such as collecting, detecting, assessing, monitoring, and preventing adverse effects associated with pharmaceutical products utilizing available pharmacovigilance information systems. Students can do this rotation at the National Pharmacovigilance Center in the Saudi Food and Drug Administration (SFDA).

11.14.2.2 **Goals**

11.14.2.2.1 Understand the structure and the role of the National Pharmacovigilance Center in the Saudi Food and Drug Administration (SFDA).

11.14.2.2.2 Demonstrate an understanding of the principles of pharmacovigilance and drug safety, as well as the Good Pharmacovigilance Practices.

11.14.2.2.3 Identify the adverse drug reactions (ADRs) when they occur.

11.14.2.2.4 Identify the various types of ADRs that should be documented and reported.

11.14.2.2.5 Determine the potential risk factors and processes behind adverse reaction incidents.

11.14.2.2.6 Show the ability to report ADRs.

11.14.2.2.7 Participate in the actions taken to prevent ADRs when possible.

11.14.2.2.8 Understand how the pharmacovigilance team evaluates reports on both marketed drugs and the ongoing assessment of the safety and quality of pharmaceuticals, side effects, and medication errors.

11.14.2.2.9 Take part in the quantitative assessment of benefit/risk analysis and the sharing of information required to enhance medication prescribing and regulation.



11.14.2.2.10 Show professional attitudes, actions, and self-directed learning abilities that are characteristic of a professional pharmacist during the rotation.

11.14.2.3 Requirements of learning experience

11.14.2.3.1 Required hours

The student will need to attend the assigned hours as per the training program.

11.14.2.3.2 Required assignments

The student is required to submit a reflexive essay by the end of the rotation to the FP training unit.

11.14.2.3.3 Required presentation:

Presenting one short presentation on a topic to be decided by the student and the preceptor.

12. Process for Handling Complaints

The Faculty of Pharmacy, Al-Baha University is committed to providing a learning and working environment in which complaints are responded to promptly and with minimum distress and maximum protection to all involved parties.

12.1 It is the responsibility of the student to report any problems that arise during the practice experiences to the training unit as soon as the problem occurs. DO NOT wait until the end of the practice experience.

12.2 The student should attempt to resolve the issue with the preceptor directly.

12.3 If the complaint is not resolved quickly, the student should submit a written complaint to the training committee. The complaint should explain the problem as clearly and completely as possible.

12.4 If the complaint is still not resolved, the complaint will be submitted to the Vice Dean of Academic Affairs following the same format as above.

12.5 If the complaint is still not resolved, the complaint will be finally submitted to the Dean office.

12.6 On the other hand, letters of guidance will be issued to students upon a complaint from a preceptor regarding the students' lack of compliance with the any of the above guidelines.



Copies of the letters will be sent to the student, Vice Dean of Academic Affairs, Dean's office, and preceptor.

Letters of guidance may be cause for disciplinary action.

13. Mechanism for Changing the Training Location

13.1 The student submits a request to the training unit at FP one month before the end of the current training period.

13.2 If approved, it will be submitted it to The Dean of the Faculty for final approval or rejection.

14 Criteria for SPLE Exam attendance permission:

Students should fulfill the following criteria before obtaining SPLE exam attendance permission:

14.1 Passing at least two terms of the clerkship training program.

14.2 Attending at least 75% of the SPLE training workshop program at the Faculty of Pharmacy.

14.3 Attending the latest progress test.

14.4 Attending preparatory SPLE (P-SPLE) exam that is held at the FP at the end of each term and achieving a score of at least 70%.

14.5 Priority is given to students with higher GPAs and higher grades in the progress test.

15 Criteria to get the certificate of clerkship experience:

15.1 Passing the 10 clerkships rotations.

15.2 Attendance and presenting the monthly presentations.

15.3 Submitting the monthly reports and other required assignments.

15.4 Submitting a copy of the approved appointment for the SPLE exam.

15.5 Submitting performance result on SPLE test domains (result diagram).



16 Appendices

Appendix I

Patient confidentiality statement

See attached.

I hereby acknowledge that I have read and understood 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 Al-Baha University.

Name:

.....

Signature:

.....

University ID:

.....

Date:

.....



Appendix II

Absence Request Form

Student Name:

Student ID Number:

Location.....

Type of Absence Requested:

Sick Vacation Other

Dates of Absence:

From: _____ To: _____

You must submit requests for absences, other than sick leave, one day before the first day you will be absent.

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

Approval

Approved

Rejected

Comments:

Preceptor:

Signature:

Faculty Coordinator:

Signature



Appendix III

Immunization record

Name: Date: /...../.....

National ID: Hospital files number:

Address: Phone

Date of Birth: /...../.....

Type of Vaccine	Date vaccine given (mo/day/yr)	Route and Site	Next dose



Appendix IV

Attendance sheet Faculty of Pharmacy

Student name: Student ID:

Rotation #: Hospital:

Serial	Date	Student Signature	Serial	Date	Student Signature
1			16		
2			17		
3			18		
4			19		
5			20		
6			21		
7			22		
8			23		
9			24		
10			25		
11			26		
12			27		
13			28		
14			29		
15			30		

Preceptor Name/
.....

Preceptor Signature/
.....



Appendix V

Registration Form

Student's Information*	
Full Name (in Arabic and English as passport)	
ID	
Active cell phone	
GPA	
Pass the requirements	

Training Sites* (One option for each Term)	
Option # 1	
Option # 2	
Option # 3	
Option # 4	

* Using Google Forms.



Appendix VI

Assessment Form for Selected Site-Specific Rotation (Rubric Form A)

Student name		Student ID	
Hospital name (site)		Rotation	
Start date		End date	

- Thank you for precepting the trainee student.
- It is strongly recommended to discuss the evaluation in person with trainee students.
- This form should be signed by preceptor, then returned in sealed envelope to the head of the Training unit at the Faculty of Pharmacy or send it by email to pharmacy.training@bu.edu.sa.

Rotations to be selected (according to site availability)

- | | | |
|---|---|--|
| <input type="radio"/> Cardiology | <input type="radio"/> Nephrology | <input type="radio"/> Endocrinology |
| <input type="radio"/> Pulmonary | <input type="radio"/> Pediatrics | <input type="radio"/> Ambulatory care |
| <input type="radio"/> Surgery | <input type="radio"/> Infectious Diseases | <input type="radio"/> Neurology and Psychiatry |
| <input type="radio"/> Obstetrics and Gynecology | <input type="radio"/> Oncology | |

Domain	Outcomes	Grade	Final
Professionalism/Ethics	1. Student has always demonstrated professionalism (e.g., in attire, timeliness, punctuality, and respectfulness).	5	
	2. Student has been an effective member of an interprofessional team (respectful and accountable).	5	



	3. Student has demonstrated awareness and sensitivity towards individuals from diverse populations.	5	
	4. Student demonstrated effective leadership skills (e.g., leading a project or group discussion, in problem solving, in relationships with peers, staff or patients).	5	
Self-Management	5. Student has maintained motivation, attention, and interest during learning and rotation-related activities.	5	
	6. Student exhibited emotional maturity and was able to effectively work under stress.	10	
	7. Student has demonstrated self-awareness (an ability to examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could impact personal and professional growth, an ability to incorporate constructive criticism).	15	
Communication	8. Student has effectively communicated with preceptors, colleagues, healthcare providers or patients (obtain medications history)	15	
	9. Student has effectively educated a variety of audiences (e.g., lectures, presentations, patient education materials, drug information responses, patient counseling).	15	
Clinical skills	10. Student has satisfactorily completed any tasks related for this rotation: Identifying real or potential drug therapy problems Determining the desired therapeutic outcome(s) Evaluating therapeutic alternatives Designing an optimal individualized pharmacotherapeutic plan Developing methods to evaluate the therapeutic outcome	20	
Evaluation	Final score	100	



Comments:

Preceptor Name		Email	
Signature		Date	



Appendix VII

Assessment Form for Case Study Presentation (Rubric Form B)

Student name		Student ID	
Hospital name (site)		Rotation	
Start date		End date	

Content	Marks	Final
Slides delivered to the preceptor on time (i.e., no later than 5 days before the scheduled presentation date and time)	10	
Case presentation was within the allotted time	10	
Drug-related problems (able to identify the drug-related problems)	30	
Clinical skills (analyze patient case, interpret laboratory data , design an optimal individualized pharmacotherapeutic plan based on evidence-based guidelines, understand common and serious toxicity of drugs used, recognize drug interactions, able to monitor drug therapy for efficacy and toxicity, evaluate therapeutic outcomes)	30	
Presentation skills (organization, projection of voice, maintain eye contact, able to answer questions concisely, printed and audiovisual materials are accurate mention references)	20	
Final score	100	



Comments:

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Faculty Name		Email	
Signature		Date	



Appendix VIII:

Assessment Form for Community Pharmacy Rotation (Rubric Form C)

Student name		Student ID	
Site name			
Start date		End date	

- Thank you for precepting the trainee.
- It is strongly recommended to discuss the evaluation in person with the trainee.
- This form is **CONFIDENTIAL** and should be signed by preceptor, then returned in sealed envelope to the head of the training unit at the Faculty of Pharmacy or sent by email to pharmacy.training@bu.edu.sa.

Domain	Outcomes	Grade	Final
Professionalism/ Ethics	Adhered to dress code.	5	
	Professional, courteous, respectful, compassionate behavior and maintained confidentiality.	5	
	Punctual, no unapproved absences.	5	
	Dependability, attitude, motivation, sense of duty.	5	
	Interactions were courteous, respectful, compassionate, and culturally sensitive (preceptors, colleagues, or patients).	5	
	Discussed options with the preceptor prior to making recommendations.	10	
Communication	Demonstrating respect for patients, superiors, colleagues and property.	15	



	Demonstrating the ability to process prescription orders correctly and in timely manner and dispensing the medications correctly and efficiently	20	
Skills	Effectively counsel the patients about the therapeutic indication, therapeutics goals, current status, interventions and follow up the patients (using patient records if present) and performing any necessary pharmaceutical calculation	30	
Evaluation	Final score	100	

Comments:

--

Preceptor Name		Email	
Signature		Date	



Appendix IX

Assessment Form for Non-patient-focused Rotation (Rubric Form D)

Student name		Student ID	
Rotation Site name (e.g., pharmaceutical company)			
Start date		End date	

- Thank you for precepting the intern.
- It is strongly recommended to discuss the evaluation in person with the intern.
- This form should be signed by preceptor, then returned in sealed envelope to the head of the training unit at the Faculty of Pharmacy or sent by email to pharmacy.training@bu.edu.sa.

Domain	Outcomes	Grade	Final
Professionalism/Ethics	1. Student has always demonstrated professionalism (e.g., in attire, timeliness, punctuality, and respectfulness).	5	
	2. Student follows the company policies, procedures and rules.	5	
	3. Student shows dependability and sense of duty.	5	
	4. Student has been an effective member of an interprofessional team (respectful and accountable).	5	
	5. Student demonstrated effective leadership skills (e.g., leading a project or group discussion, in problem solving, in relationships with peers or staff).	10	
Self-Management	6. Student has maintained motivation, attention, and interest during learning and rotation-related activities.	15	
	7. Student exhibited emotional maturity and was able to effectively work under stress.	10	



	8. Student has demonstrated self-awareness (an ability to examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could impact personal and professional growth, an ability to incorporate constructive criticism)	15	
Communication	9. Interactions were courteous, respectful, compassionate, and culturally sensitive.	15	
	10. Student has completed any other assigned activities satisfactorily.	15	
Evaluation	Final score	100	

Comments:

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Preceptor Name		Email	
Signature		Date	



Appendix X:

Assessment Form for Hospital Pharmacy Rotation (Rubric Form E)

Student name		Student ID	
Site name			
Start date		End date	

- Thank you for precepting the trainee.
- It is strongly recommended to discuss the evaluation in person with the trainee.
- This form is **CONFIDENTIAL** and should be signed by preceptor, then returned in sealed envelope to the head of the training unit at the Faculty of Pharmacy or sent by email to pharmacy.training@bu.edu.sa.

Domain	Outcomes	Grade	Final
Professionalism/ Ethics	Adhered to dress code.	5	
	Professional, courteous, respectful, compassionate behavior and maintained confidentiality.	5	
	Punctual, no unapproved absences.	5	
	Dependability, attitude, motivation, sense of duty.	5	
	Interactions were courteous, respectful, compassionate, and culturally sensitive (preceptors, colleagues, or patients).	5	
	Discussed options with the preceptor prior to making recommendations.	5	
Communication	Demonstrating respect for patients, superiors, colleagues and property.	10	



Skills	Inpatient pharmacy - Understanding of the general policy and procedures in inpatient pharmacy. - Understanding the unit dose system and floor stock system. - Understand the inpatient medication orders and processes.	10	
	Outpatient pharmacy - Able to understand the policies and procedures of outpatient pharmacy. - Demonstrate the ability to receive, prepare, double-check, and dispense outpatient prescriptions. - Demonstrate the ability to counsel patients.	10	
	Sterile compounding unit - Understand the various equipment used (e.g., lamina air flow and HEPA filter). - Prepare solutions under aseptic technique. - Calculate and prepare TPN solutions.	10	
	Narcotics and controlled psychotropic drugs - Understanding the policy and procedures of narcotics and controlled psychotropic drugs - Demonstrate knowledge about the classification of controlled drugs.	10	
	Extemporaneous preparations -Demonstrate ability to make the proper pharmaceutical calculations. -Demonstrate ability to prepare popular extemporaneous preparations.	10	
	Drug and poison information center (DPIC) - Understanding of DPIC literature and searching processes and appropriate use of drug information resources. - Providing drug information responses at the proper time and in a suitable format, either to a healthcare provider or a layperson.	10	



Evaluation	Final score	100	
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Comments:

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Preceptor Name		Email	
Signature		Date	



Appendix XI

Non-Patient Focused Rotation Reflective Essay Requirements

Essay Prompt	
<p>Please reflect on your recent non-patient-focused rotation. In your essay, please address the following:</p> <ul style="list-style-type: none"> Describe two aspects of your recent rotation that you were not aware of prior to the rotation and how learning about them changed your view of the field. Identify two areas in your recent rotation that you wish to strengthen your knowledge of or have more exposure to. At this point in your career, what are your pharmacy career plans, and how, if at all, has your non-patient-focused rotation modified these plans? 	
Formatting	
<p>Reflection to be written in formal essay format with introduction, body, and conclusion. Introductory paragraph should include the name of your clerkship rotation site, location of the site, and name of your primary preceptor. Minimum of 1000 words but not more than 1200 words. Double spaced. 11-point font. One-inch margins. Student name and date on all pages in the upper right-hand corner. Essay title bolded and centered at top of first page.</p>	
Content and writing skills	
<p>Essay should directly and candidly address the stated prompt. Provide examples to back up your opinions and reflections. Essay should be reflective and evaluative in nature. Ideas should be well developed, clearly and concisely expressed, and persuasive. Essay should have a clear introduction, main body, and conclusion.</p>	



	<p>Writing should conform to standard conventions for written expression and be free from spelling, grammar, syntax, and typographical errors.</p> <p>Essay must be typed and be submitted by the stated deadline.</p>
Assessment	
	<p>Submit your reflexive essay during the last week of your rotation to your FP academic supervisor via email.</p> <p>Your FP academic supervisor will totally assess and assign a grade for your essay.</p>



Appendix XII

Assessment Form for Non-patient-focused Rotation Reflexive essay (Rubric F)

Student name		Student ID	
Site name			
Start date		End date	

	Criteria	Mark
Completeness and formatting		
1	The reflective essay is structured with a title page showing the student's name and student number, an introduction, the body of the essay, a conclusion containing no new information, and a reference list.	/20
2	The introduction paragraph states the clerkship rotation site, the location of the site, and the name of the primary preceptor.	/10
3	Adhered to the required length.	/10
Essay Prompts		
1	Identifying two new aspects the student was not aware of before starting the rotation and how learning about them changed the student's perspective about the field.	/10
2	Identifying two areas in the rotation where the student wishes to strengthen his or her knowledge.	/10



3	Describing the pharmacy career plans and how the rotation modified these plans.	/10
Writing Skills		
1	The essay is reflective and evaluative in nature and provides a rich and detailed description and interpretation of the case.	/10
2	Attempt to integrate relevant facts and relationships and provide examples to back up opinions and reflections.	/10
3	The essay is written in academic language and free from spelling, grammar, syntax, and typographical errors.	/10
Final Score		/100

Preceptor Name		Email	
Signature		Date	



Appendix XIII

Pharmaceutical Care Plan Database Form (PCDF)

Academic Year : 144.....(20...../ 20.....)	
Semester: • Summer • First • Second • Third	
Period No.: • First • Second • Third • Fourth	
Student's Information	
Student's Name:
Registration Number:
Hospital / Pharmacy Name
Rotation Name
Rotation Period	From / /202 to/...../ 202



Case Evaluation / Assessment
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Preceptor Signature:

Instructions for preceptors and students: The PCDF is one form of documentation of pharmaceutical care for doctor pharmacy students at Al-Baha University/ Faculty of Pharmacy. It's used to assess expected knowledge and skills. The students will return the form to the preceptor whenever it is completed.



Demographic And Administrative Information		Chief complaint
File Number		
Age		
Gender		
Nationality		History of Present Illness
Occupation (Job)		
Educational level		
Date of admission		
Date of discharge		Acute Medical Therapy
Weight		<ul style="list-style-type: none"> • • • • • • • • • •
Height		
BMI		
Past Medical History	Family/social History / Lifestyle	
Stroke	Family Hx of CVD	
DVT	Smoker	
DM2	Diet	
ACS/MI/CAD	Other ()	
HTN		
Asthma		
		Past Drug Therapy
COPD		<ul style="list-style-type: none"> • • • • • • • •
AF		
CRF		
Liver disease		
PUD		
Cancer		
Dyslipidemia		



Other ()		•
Drug Intolerance/Allergy	Drug serum concentrations	
No known drug allergy		

Vital Signs									
Date	/	/	/	/	/	/	/	/	/
Temp									
B.P.									
Pulse									
R.R.									

Comments:

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Current Drug Therapy

<i>Drug name / Dose / Strength / Route / Freq.</i>	Indication <i>(in this Case)</i>	Start <i>(Date)</i>	Stop <i>(Date)</i>	Discharged On (yes/no)
1)				
2)				
3)				
4)				
5)				
6)				
7)				
8)				
9)				
10)				
11)				
12)				



Patient's Adherence assessment Worksheet:

(Scoring from **High** to **Low**, yes=0, No=1. Range from 0-4 (patient answers yes to zero items = High adherence, yes to 1 or 2 items = med. Adherence, yes to 3 or 4 items = low adherence)

Adapted from Morisky et al.

	Do you ever forget to take your meds?	Are you careless at time about taking meds?	When you feel better, do you sometimes stop taking your meds?	Sometimes if you feel worse when you take the meds, do you stop taking meds?	assessment
Y/N					



Treatment Assessment Worksheet			CrCl= ml/min.	
No.	Medical problem or condition	Medications prescribed and dose	Treatment of choice and recommended dose/frequency	Appropriate (Y, N)
1.				
2.				
3.				
4.				
5.				
6.				



Drug interaction Assessment Worksheet			
Drug (1)	Drug (2)	Severity	Potential interaction
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			



10.			
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Pharmacist's Care Plan

Date	Medical problem	Therapeutic Goals	Pharmacist Recommendations	Monitoring Parameters and endpoints	Physician action





Laboratory Data / Diagnostic test results

Date								References	Interpretation of lab results
Chemistry :									
Na ⁺									
K ⁺									
Creatinine									
Urea									
Glucose (FBS or RBS)									
HbA1c									
Albumin									
Ca ⁺ Total									
Phosphorous									
Protein Total									
Uric acid									
ALP									
Bilirubin Total									
Bilirubin Direct									
CPK									
AST(SGOT)									
ALT(SGPT)									
Amylase									
LDH									
CRP									
Mg ⁺									
Hematology :									
Hb									
RBCs									
MCV									
MCH									
MCHC									
WBCs									
% Lymph.									
% Mono.									



% Granulo.									
Platelets									
PT (sec)									
aPTT									
INR									
Urinalysis :									
pH								4.5 -8.0	
Ketones								Negative	
Protein								Negative	
Glucose								Negative	
WBCs								3- 4 /LPF	
RBCs								1- 2 /LPF	
Cast								≈ Hyaline	
ABGSs									
pH									
Pco2									
Po2									
HCO₃									
CO₂ %									
O₂ Sat									
Lipid Profile									
Total Cholesterol									
LDL									
HDL									
TG									



<i>Micro-organism culture (Biogram):</i>			
Micro-organism	Specimen	Results	Sensitivity to antibiotic
1.			
2.			
3.			
4.			

Comments:

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Appendix XIV

Assessment Form for Pharmaceutical Care Plan Database (PCDF) (Rubric G)

	Criteria	Mark
Gathering and assessing information		
1	Demographic data	2
2	Chief complaint and the history of present illness	3
3	Medication History (past, acute and current)	5
4	Patient interview (adherence, counselling and education)	10
5	Drug related problems (identification unnecessary, ineffective, drug therapy and incorrect doses and adverse drug reactions)	30
6	Developing and implementation an optimal therapeutic plan (prioritize the patient's problem list, therapeutic goals, pharmacist recommendation, monitoring parameters and physician action)	40
7	Documenting Therapeutic Interventions – Pharmacotherapy workup notes (SUMMARY)	10
Final Score		/100



Appendix XV

Trainee Student site feedback

Name of the student ID No:

Rotation Period from to..... Training
site.....

No.	Parameters	Excellent/very good/good/satisfactory/Poor
1	Assignment with a team of specialists for daily round	
2	Accessibility to patients for interview and counseling	
3	Accessibility to patient medication record	
4	Encouragement to participate in discussion regarding patient's medication.	
5	Assignments for preparation and discussion regarding medication	
6	Accessibility to learning resources like library, e-learning etc....	
7	Accessibility of Specialists/ consultants / preceptors	
8	Competency of the preceptors	
9	My rotation schedules.	
10	My overall assessment of the internship program	

Signature:



NOTE: The evaluation document is highly confidential. It should be submitted via official email or in sealed envelope to Supervisor of Training Unit, Faculty of Pharmacy, Al Baha University at the end of the training period.



Appendix XVI

Proof of commencement of training

Student name		Student ID	
Site name			

The Department of Academic Affairs and Training

Or

Training Department

Or

Director of the Pharmacy / Pharmacy Company

at Hospital/Pharmacy/Pharmacy company certifies that the student whose name and data are mentioned above has commenced clerkship training as of the date of / /

This proof was given to him without any responsibility to the hospital Pharmacy/Pharmacy company.

Name		Email	
Signature and stamp		Date	



References:

1. Pharmacotherapy: A Pathophysiologic Approach, Joseph. 12th ed T. Dipiro, Robert L. Talbert, and Michael Posey, Appleton and Lange: Norwalk, Connecticut. McGraw-Hill Medical Publisher, 2023.
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3. Updated ACCP guidelines
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6. Ruth & Karen. McGraw-Hill, New York, NY. Pharmacy Clerkship Manual, 2002.
7. Boh L. Pharmacy Practice Clinical Manual, 2nd ed. Lippincott, 2002.
8. Cipolle RJ, Strand L, Morley PC. Pharmaceutical Care Practice: The Clinician Guide, 2nd ed, 2004.
9. Cipolle RJ, Strand L, Morley PC. Pharmaceutical Care Practice: The Patient-Centered Approach to Medication Management, Third Edition 3rd ed, 2012.
10. Materials as assigned by preceptor or participating health care professionals.
11. <https://www.acpe-accredit.org/pdf/GuidanceforStandards2016FINAL.pdf>

