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خطة التدريب الصيدلاني  
Pharmacy practice plan

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## 2 .Aim:

To recognized the mission of pharmacy education and the responsibility to train health professionals and keep citizens informed of changes in health care systems, and to provide them with knowledge and values to stimulate public involvement in the development of the profession's policies, practices, and guidelines going forward.

## 3 .Principles:

Pharmacy Training plan based on the following core principles:

- Commitment to quality
- Ethical and social involvement
- Learning based on values that inform the process of innovation and that focus mainly on personal and social development, knowledge, and ethical/social involvement.
- Development of thinking in its various forms
- Acquisition of the instrumental, interpersonal, and systemic competencies required by students for their professional and social performance and integration which involves more than technical mastery of their specialty
- Promotion of teamwork

#### 4 .Areas of professional practice/Training:

The main common areas of pharmaceutical professional practice/training that have seen the greatest growth in the last two decades are:

- Community pharmacy
- Hospital pharmacy
- Pharmaceutical industry
- Public health and regulatory matters
- Education
- Cosmetic

Functions/domains	Competencies	Behavior that a pharmacist should be able to demonstrate
Functions involving professional performance	Comply with current legislation (including ethical/bioethical aspects)	1. Demonstrate an understanding of current legislation related to public health, drugs, and pharmaceutical services, in particular regarding the registration and use of medicines. 2. Demonstrate an understanding of the necessary steps for a drug to be registered for it to be allowed to be distributed in the market, including aspects related to product safety, quality, efficacy, and cost-effectiveness. 3. Demonstrate the ability to establish guidelines for professional practice and implement them effectively.
	Promote continuing education of human resources (pharmaceutical services and the health team)	1. Develop, support, and facilitate continuing, life-long education of human resources in pharmaceutical services. 2. Promote the development of competencies in members of health services and other health professionals. 3. Contribute to the educational development of future professional. 4. Help educate prescribers on the subjects of access and evidence for proper drug use, including the necessary parameters to monitor and adjust prescriptions.
	Promote life-long professional development	1. Document continuing professional development activities (demonstrate training and continuing professional development aimed at improving their clinical knowledge, skills, and professional performance). 2. Demonstrate up-to-date knowledge of drugs and the assessment of new

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Functions/domains	Competencies	Behavior that a pharmacist should be able to demonstrate
<p>pharmaceutical services: This category describes the competencies for effectively managing pharmaceutical supplies and services</p>	Prepare formulations and compounds	<ol style="list-style-type: none"> <li>1. Formulate and prepare extemporaneous pharmaceutical compounds, parenteral solutions, cytostatic reconstitutions, and other formulations required by the services, to guarantee the timely availability of safe, quality products.</li> <li>2. Prepare drugs in accordance with good manufacturing/drug preparation practices to guarantee the timely availability of safe, quality products.</li> </ol>
	Perform drug fractionation	<ol style="list-style-type: none"> <li>1. Correctly fractionate and prepare drugs and other essential supplies to guarantee the timely availability to patients of safe, quality products in the necessary quantities.</li> <li>2. Package and label drugs and other essential supplies to guarantee patient safety and correct use, identifying the patient and the drug and providing relevant information, user warnings, guidelines on correct use, and possible adverse reactions.</li> </ol>
	Remove and dispose of drugs	<ol style="list-style-type: none"> <li>1. Conduct frequent controls of drug supplies, ensuring that drug samples are included in periodic inspections of expiration dates and in the elimination of expired supplies.</li> <li>2. Remove drugs, including samples, quickly and efficiently from circulation when they have expired or when it is known or suspected that they are defective, misleadingly labeled, falsified, or counterfeit, separating these so that they are not dispensed or distributed.</li> <li>3. Report suspected or confirmed quality problems and counterfeit drugs to the responsible authorities.</li> <li>4. Take the necessary steps for proper handling and disposal of residues from drugs and essential supplies.</li> <li>5. Encourage patients and the general public to return drugs and health products that are expired, unwanted, or unneeded. Alternatively, they should provide patients with appropriate information on procedures for the safe elimination of expired or unwanted drugs.</li> </ol>

### Pharmacy training Outcomes:

Well trained pharmacist and have different skills in different domains and areas of pharmaceutical professional practice as follow:

DOMAIN	FUNCTION
1. Regulation, control, and inspection	Carry out, within the legal framework, the control, regulation, and inspection of pharmaceutical and cosmetic products and medical devices; also, act as an authority for the establishment and inspection of pharmaceutical facilities, and help improve the legal framework.
2. Pharmaceutical assistance	Help promote and reestablish patient health through timely, efficient, safe, and informed provision of pharmaceutical services at the different levels of complexity of care.
3. Private pharmacy	Plan, acquire, store, and dispense drugs; prepare pharmaceutical compounds to reestablish health through timely, efficient, safe, and informed provision of pharmacy care to the community; manage the pharmacy; assess health conditions objectively, and identify the need to refer patients to another service or level of care. Provide first aid and necessary care and refer patients to another service or level of care. Make pharmaceutical recommendations, selecting appropriate medicines for minor symptoms (e.g. diarrhea, cough, fever, insect bite, etc.). Discuss therapeutic goals and drug use with patients and reach decisions based on the patient's needs and preferences. Conduct follow-up and receive cross-referrals from other services, and document interventions.
4. Industry	Conduct research and development of new formulations, registration and production of drugs and cosmetics, quality control, and quality assurance; and participate in the promotion and marketing of pharmaceutical and cosmetic products.
5. Analytical laboratory	Extract, identify, and quantify chemical and biological substances in different matrices; interpret and report results obtained, in accordance with valid and relevant analytical procedures.

### Course specification of Pharmacy practice

This course would concern into four parts; industrial pharmacy, community pharmacy, hospital pharmacy and clinical pharmacy

#### Learning Outcomes:

- 1 .To describe the critical elements that are required in the production of a pharmaceutical product.
- 2 .To explain the principles of Good Manufacturing Practice and quality assurance.
- 3 .To emphasis the methods of counselling and interactions between patients and pharmacists as well as communication skills of a community pharmacist and to experience the roles of a community pharmacist.
- 4 .To understand patient's medical case notes: To discuss symptoms, pathophysiology, laboratory test results, physical examinations, diagnosis, and appreciate the prognosis of acute and chronic illnesses, pharmaco-therapeutic management plan.
- 5 .To provide the basic principles and philosophy of pharmaceutical care in providing clinical pharmacy services for patients both in institutional and community settings. The main purpose is to build knowledge and skills to identify and solve drug-related and drug-use problems in patients.
6. To adopt the basic knowledge to perform clinical pharmacy practice in health institutions and community pharmacy.



Order	Content	Sub Content	Credit Hour
1	Training in community pharmacy	<ul style="list-style-type: none"> <li>• CVS drugs</li> <li>• Cough and asthma</li> <li>• GIT</li> <li>• OTC</li> <li>• Topical preparation</li> <li>• Antibiotics</li> </ul>	
2	Training in hospital pharmacy	<ul style="list-style-type: none"> <li>• Therapeutic dispensing sessions and attachment to the various pharmacy services in the hospital</li> <li>• Trained to screen prescriptions thoroughly to prevent any medication errors</li> <li>• Therapeutic uses of drugs, abnormal doses, drug-drug interactions, and Contraindications.</li> <li>• Calculation of doses, method of dispensing and labelling of pharmaceutical products available will be taught</li> </ul>	
3	Training in clinical pharmacy	<ul style="list-style-type: none"> <li>• The pharmacological and non-pharmacological managements for condition and the methods of monitoring for the therapies</li> <li>• the symptom presentation and the basic principles involved in diagnosing these disorders</li> <li>• Apply laboratory results with the principles of patient management and knowledge of its relevancy</li> </ul>	
4	Training in industrial pharmacy	<ul style="list-style-type: none"> <li>• Production line</li> <li>• Industry structure</li> <li>• GMP</li> <li>• Quality control</li> <li>• Quality Assurance</li> <li>• Store specification and sampling</li> </ul>	



## Pharmaceutical Industry Training

aims:

1. Shows high ability and creativity in research and production of drugs that is beneficial to the community
2. Master in-depth with accurate knowledge of current and compare it with the actual pharmaceutical industry design
3. Manage the business of Pharmaceutical Manufacturing Industry following set guidelines.

## Report

Industry name\ .....

Data\ .....

- Premise: (How it looks like?)
- Production lines
- Sampling
- Quality control:
  - ✓Aim
  - ✓SOP
  - ✓GMP
- ANALYSIS:
  - Starting material
  - Finished material
  - Intermediate material
  - Packing material
- Quality Assurance
- Store specification and sampling
- Documentation
- Research and development department
- Overall note

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### نموذج تقييم متدرب

#### ١. معلومات عن المتدرب:

اسم المتدرب	اسم المقيم	
اسم الجهة	الادارة	
اسم الدورة	القسم	
مكان التدريب	تاريخ التقييم	
فترة التدريب		

#### ٢. المسئوليات العامة للمتدرب:

A	B	C	D	E	المواظبة على الحضور
A	B	C	D	E	السلوك العام للمتدرب
A	B	C	D	E	المشاركة خلال فتره التدريب
A	B	C	D	E	يلتزم بسياسات وإجراءات المصنع
A	B	C	D	E	التحفيز الذاتي
A	B	C	D	E	يستخدم برامج الكمبيوتر بفعالية
A	B	C	D	E	المبادرة في تعلم الجديد
A	B	C	D	E	يقدم ملاحظات واقتراحات
A	B	C	D	E	يعمل بروح الفريق

#### ٣. السمات الشخصية / الوظيفية للمتدرب

A	B	C	D	E	مهارات الاتصال مع الآخرين
A	B	C	D	E	سرعة الفهم
A	B	C	D	E	استخدام للوقت
A	B	C	D	E	المبادرة
A	B	C	D	E	التكيف مع اسلوب التدريب
A	B	C	D	E	المظهر الخارجي اللائق
A	B	C	D	E	جودة العمل بشكل عام
A	B	C	D	E	يلتزم بتعليمات المدرب بإيجابية

#### ٤. التقييم العام:

الاسم:	المسمى الوظيفي:
التوقيع:	التاريخ:

## 5. Community pharmacy training syllabus:

### 1 .OTC Medication:

#### A. Analgesic

- OTC analgesics (tablet, I.M, I.V, rectal, pediatric, topical)
- OTC analgesics Specific group of patients

#### B. OTC for GIT disorders

- Neutralizing antacids for simple hyperacidity
- Oral H<sub>2</sub> blockers
- Proton pump inhibitors

#### C. Antiemetics

- Antihistamine as Anti-motion sickness
- Antiemetics, dopamine antagonists
- Antiemetics, serotonin antagonists

#### D. Antispasmodics

- Anticholinergics
- Non-Anticholinergics
- Antispasmodic and digestive enzyme
- Antispasmodics + analgesics

#### E. Anti-diarrheal

- Opiates
- Adsorbent

#### F. Laxatives: for constipation

- Purgatives
- osmotic agents
- stool softener
- bulk forming

#### G. OTC for hemorrhoids

#### H. OTC for Respiratory disorders

- Sore throat
- Decongestant
- Dry and wet cough

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I. Dermatologic disorder

- Eczema
- Antibacterial
- Antifungal
- Burn
- Scabies
- Acne
- Warts
- Antiseptics

J. Ear disorder

- Antibacterial
- Antifungal

K. Eye disorder

- Antibacterial
- Steroid preparation
- Eye dryness

L. Nutrients

2. Prescription-only medications:

- A. Narcotic analgesic
- B. Antidepressants
- C. Antipsychotics
- D. Sedatives / hypnotics
- E. Antiepileptics
- F. CVS
  - Diuretics
  - Antiarrhythmics drugs
  - Antihypertensives
    - Centrally acting (Alpha-blockers, Beta blockers, ACE inhibitors, Angiotensin II blockers, Direct vasodilators)
    - Calcium channel blockers
- G. Blood disorders
- H. Bronchial asthma
- I. Antibacterial
  - Sulfonamides
  - Fluroquinolones
  - Semisynthetic antibiotics
  - Penicillins
  - Cephalosporins
  - Macrolides
  - Aminoglycosides
  - Lincosamides
  - Tetracyclines
- J. Antifungal
- K. Antiviral
- L. Anti-TB

6. Hospital pharmacy training syllabus:

Task1: Identify the hospital pharmacy

Task2: Identify the management of medications in the hospital

Task 3: Regulations of Dispensing and Distribution of medications in the hospital (Study of IV compatibility)

Task 4: Documentations in hospital pharmacy

Task 5: Specific medications in the hospitals



## 7. Clinical pharmacy training syllabus:

Each five student take three case and give the details for the case starting from medical history till the full treatment regimens

- Cases discussion according to SOAP notes and interpretation of laboratory data
- Case-studies on hypertension, heart disease
- Case-studies on chronic obstructive pulmonary disease
- Case-studies on renal disorders
- Endocrinology disorder (Diabetes mellitus, thyroid disorder)
- Gynecologic disorder (therapeutic disorder)

## 8. Training periods:

Training Time	Training Period	Field	Training Center
5 <sup>th</sup> , 6 <sup>th</sup> Semesters	60 Hrs. 1 month	Community Pharmacy Internally	Default Pharmacy
5 <sup>th</sup> , 6 <sup>th</sup> Semesters	160 Hrs. 1 month	Community Pharmacy Externally	Private Pharmacies
7 <sup>th</sup> , 8 <sup>th</sup> Semesters	60 Hrs. 1 month	Community Pharmacy Internally	Default Pharmacy
7 <sup>th</sup> , 8 <sup>th</sup> Semesters	480 Hrs. 3 months	Community Pharmacy Externally	Private Pharmacies
9 <sup>th</sup> , 10 <sup>th</sup> Semesters	120 Hrs. 2 months	Clinical Pharmacy (40 Cases)	..... Hospital
9 <sup>th</sup> , 10 <sup>th</sup> Semesters	40 Hrs. 1 weak	Industrial Pharmacy Industry	..... Industry
10 <sup>th</sup> Semester	80 Hrs. 1 month	Hospital Pharmacy	..... Hospital

#### ٩. آلية التقييم لبرنامج التدريب الصيدلاني:

- ١- إتمام وتوقيع المشرف بالصيدلية الخارجية على فتره التدريب وكتاب التدريب log book
- ٢- إتمام وتوقيع مشرف التدريب بالمستشفيات حول التدريب السريري والمستشفيات وتعبئة الكتيب التدريب log book
- ٣- تقديم تقرير الخاص بالتدريب بالمصانع مع استمارة التقييم الخاصة بالطالب من إدارة المصنع حسب ما تم إرفاقه سابقا

#### ١٠. آلية العامة لتقييم وتوزيع درجات التدريب الصيدلاني:

نوع التدريب	نوع التدريب	تقييم جهة التدريب	تقييم لجنة التدريب في الكلية	النتيجة
داخلي ١ - ٤	صيدلية مجتمع	.....	log book	المجموع: ١٠٠
			امتحان تحريري	٥٠ %
			امتحان شفهي	٣٠ %
خارجي ١، ٢	صيدلية مجتمع	٥٠ %	log book	المجموع: ١٠٠
			امتحان شفهي	٣٠ %
مستشفيات	صيدلية مستشفيات	٥٠ %	log book	المجموع: ١٠٠
			امتحان شفهي	٣٠ %
مستشفيات	صيدلة سريرية	٥٠ %	log book	المجموع: ١٠٠
			امتحان شفهي	٣٠ %
مصانع	صيدلة صناعية	٥٠ %	log book	المجموع: ١٠٠
			امتحان شفهي	٣٠ %

#### الملحقات:

#### تعليمات مهمة للتدريب

- من أخلاق هذه المهنة العظيمة التمسك بالخلق الرفيع والصبر والحلم مع الآخرين.
- مهنتك الشريفة تعني بتقديم المساعدة للآخرين والتفاني في ذلك وبذلها بكل حب وتواضع بعيدا عن الكبر.
- الالتزام بالتعليمات التدريب وأوقات الحضور والانصراف المحددة.
- تهذيب الحديث في التعامل مع الآخرين.
- حضور الكفاءة والنشاط والمعلومات تساعد على التميز.
- الالتزام بالزي الرسمي، فإنه دليل على تميز شخصيتك ومدى احترامك لنفسك ولمهنتك.

#### تعليمات خاصة بالمصانع

- من يتغيب عن أول يوم تدريب يحرم عن التدريب.
- من يتغيب عن التدريب لأكثر من يومين وبدون اذن مسبق يحرم من التدريب.
- سيتم توزيع كل مجموعة على دوائر المصنع ولذلك يجب الالتزام بالتوزيع وعدم التنقل بين الدوائر المصنع.
- عدم التنقل بين مناطق العمل أو الدوائر المختلفة الا بأذن من المشرف المباشر.
- الالتزام بلبس المصنع وخاصة في مناطق الانتاج وعدم لبس اي بالطو ابيض شخصي.
- عدم الاكل أو الشرب في دائرة الانتاج أو المختبرات ولاي سبب كان.
- الالتزام بالنظافة الشخصية من لحية واطافر.
- عدم لبس الحلي والمجوهرات في مناطق الإنتاج.
- عدم العبث بأدوات المصنع أو الآلات والالتزام بتوجيهات المدرب المباشر.
- ارجاع أي عهد يتم أخذها من المخازن بعد الانتهاء من التدريب وعدم اعطائها الا إلى الشخص المسؤول.
- اتباع التوجيهات والتعليمات الصادرة من موظفي المصنع وعدم مخالفتها.
- عدم العبث في أي شيء من اشياء المصنع.

#### تعليمات خاصة بالتدريب بالمستشفيات

- الالتزام باللبس الماسك والبالطو الأبيض النظيف.
- حسن التعامل مع طاقم التمريض والمريض ومرافقين المريض.
- قراءه الملف بدقة واخذ ملاحظات في كتيب التدريب.
- الالتزام بتعليمات مسئول التدريب.
- مناقشة الحالات مع زملائك والمشرف.

#### مراكز التدريب المعتمدة:

- المستشفى الجمهوري.
- مستشفى الشرطة العام.
- مصنع سبأ فارما للصناعات الدوائية.
- صيدليات ابن حيان.
- صيدليات عالم الصيدلة.
- صيدليات اليمن السعيد.
- هناك العديد من الصيدليات الخاصة.