

الجممورية اليمنية

وزارة الصحة والسكان

معمد القبس الطبي

حزحاء



روئيتنا

فتح كلية القبس الطبية من أجل دعم المجتمع بالكوادر المتميزة

#### رسالتنا

- أعداد وتأهيل كوادر فنية طبية بكفاءة عالية وبمستوى راق ومميز
  - تلبية حاجات الوطن من الكوادر الفنية المؤهلة علمياً وأخلاقيا
- تطوير العملية التعليمية بما يتناسب مع التطورات العلمية الحديثة
- توفير فرص العمل من خلال التدريب العملى المكثف وبما يلبى احتياجات سوق العمل
- الإسهام الفعال فى أجراء البحوث العلمية الطبية التى تسهم فى رفد المجال الصحى بمعلومات قيمة
  - نشر الوعي الصحي لدى المجتمع

### معهد القبس الطبي

احد المؤسسات التعليمية الخاصة في اليمن ولبنة تدعم وتساهم في رفع وتطوير المجال الصحي المهني في بلادنا وقد أسس بناءً على قرار الاستثمار رقم (2654) وبترخيص من وزارة الصحة العامة رقم (9) للعام 2004 يمنح شهادة معتمدة ومعترف بها للدبلوم العالي نظام ثلاث سنوات بعد الثانوية العامة القسم العلمي أو ما يعادلها للأقسام الطبية المختلفة في المجال الصحي.

#### نظام الدراسة

ثلاث سنوات ميلادية مقسمة إلى 6 فصول دراسية (مدة كل فصل دراسي 16 أسبوع) يحصل بعها الطالب على شهادة الدبلوم العالي في مجال اختصاصه معمدة من الجهات الرسمية المعنية (المعهد العالي للعلوم الصحية – وزارة الصحة والسكان), وتتضمن الدراسة الجانب الأكاديمي النظري الذي يعتمد على كادر علمي متخصص وكفؤ ذو مؤهلات علمية وخبرات عالية .

أما الجانب التطبيقي فهو يكون سمة مميزة ينفرد بها المعهد من خلال معاملة ومختبراته والمعدة بأحدث المواصفات

والتقنيات بالإضافة إلى التنسيق مع المؤسسات الصحية العامة والخاصة للتطبيق والتعامل المباشر لترجمة الجانب

النظري إلى واقع عملي تطبيقي وبأشراف كوادر علمية وطبية وفنية متخصصة ذات خبرة وتجربة ميدانية مشهودة

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#### **Program Description:**

The Program of Pharmacy Technician is a three-year diploma that prepares graduates for licensing as a Pharmacy Technician in Yemen. An integration of classroom theory, laboratory skills, and field experience prepares graduates to practice under the supervision of the pharmacist, to perform medicine distribution and supply roles including the processing of prescriptions, secure storage, assembly, repackaging and compounding of medicines.

The practical training part represents a very important area in this program, which practically qualifies students and graduates to easily deal with practical reality and quickly engage them in the labor market immediately after their graduation.

The program graduates a Pharmacy Assistant, which is a job title for a pharmacist who holds a diploma in the field of pharmacy such as in hospitals, primary health care facilities, clinics, and community pharmacies.

# **Program Mission:**

Preparing scientifically and professionally qualified pharmacy technician who deals with professionalism based on work ethics and in the spirit of high values for the purpose of service in the health sector at the local and regional levels.

# **Program Goals**

### The program aims to prepare students scientifically and professionally to be able to:

- **1.** Graduate a qualified pharmacist technician who are able to engage in work in all the field of pharmacy under the supervision of the responsible pharmacist.
- **2.** Provide a distinguished education and professional development for pharmacy technicians.
- **3.** Prepare qualified pharmacist assistants who able to manage pharmaceutical materials from storage, distribution and control
- **4.** Prepare qualified pharmacist assistants with necessary skills to use scientific references, drug and medical information sources, communication methods, and effective and ethical participation with the medical team.

### **Graduate Attributes:**

- Demonstrate required skills, knowledge and abilities related to work in various fields of pharmaceutical work.
- Define the tools of pharmacy management, business principles, storage and inventory control
- **3-** Use problem-solving skills which promote independent decision making in the practice of a pharmacy technician
- 4- Communicate effectively and ethically with other members of the health care team to serve patients and employers with the highest degree of competence based on legal standards of professional practice.
- 5- Recognize the importance of continuing education and building the special knowledge and skills necessary to use scientific references and pharmaceutical and medical information tools.

### **Program Intended Learning Outcomes:**

**A1.** Recognize the fundamental knowledge of biomedical, pharmaceutical, pharmacy law, and practical sciences related to pharmacy technician

**A2.** Understand the work method of the pharmacist assistant and determining the standards of professional and legal responsibility when working in the field of pharmacy

**A3.** Define the correct methods and tools of manufacturing, packaging, storing and teaching medicines, selling and distributing medicines.

**A4.** Identify the pharmaceutical skills practiced by a pharmacist assistant, which includes organizational, administrative and professional aspects .

A5. Define the brand and generic drug names, appearance, manufacturer, dosage forms(s), and route of administration for at least the top 100 drugs.

**B1.** Accurately interpret the information on a new prescription, request any missing information, and enter it.

**B2.** Classify drugs according to their physical or chemical properties or the conditions they are used to treat.

**B3.** Demonstrate accuracy and timeliness in mathematical computation of ingredient amounts, doses, infusion rates, or any relevant calculation encountered in different pharmacy practice settings.

C1. Process a medication order completely, accurately, and efficiently including interpretation, drug product selection, computer warnings, packaging, and labeling, filling a prescription in an outpatient setting, and preparing IV medication using aseptic technique.
C2. Effectively manage pharmaceutical materials from storage, distribution and control.
D1. Communicate effectively and legally with the doctor and patient.

**D2.** Develop life-long learning, in particular an awareness of the need for continuing education and building the special skills necessary for the pharmacy profession such as use scientific references and pharmaceutical and medical information tools

### **Graduate Career Opportunities:**

A wide range of career opportunities in the field currently exist and include, but are not limited to, the following:

- Hospital Pharmacy Technician
- Community Pharmacy Technician
- Retail Pharmacy Clerk
- Home Health Care Assistant
- Clinical Pharmacy Technician
- Insurance Company Clerk
- Pharmacist Assistant
- Pharmaceutical Research Assistant

### **CURRICULUM MAP**

							Pro	ogram I	ntended	Learning	<mark>g Outco</mark> a	mes (PI	nes (PILOs)										
Year	Term	Course Name	Course Code	credit hours		A. Knowl	edge and un	derstandir	ng	<b>B. Intellectual Skills</b>			C. Practical & Professional Skills		D. Transferr able Skills								
					A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	D1	D2							
		Anatomy		2	Х																		
		Physiology		2	Х																		
		Physical pharmacy		3	X						X												
		Analytical chemistry		3	X		X				X					X							
	1	English language and Medical Terminology		2	X																		
		First Aid		2	X								X		X								
-		Botany		3	X																		
1		Islamic ethics		1	X																		
		Pharmaceutics I		3	X		X			X			X			X							
		Arabic language		1	X																		
		Pharmaceutics II		3	Х		X			X			Х			X							
		Community health		2	X			X							Х	X							
		Pathology		2	X										Х	X							
		Psychology		1	X										X								
	2	Organic chemistry		3	Х						Х												
		Pharmacology- I		3	Х					X			X		X	X							

		Pharmacognosy- I	3	X											X
		Computer	1	Х											
		English Language & Medical Terminology	2	х							X				
		Biochemistry	3	X											X
		Pharmaceutics - III	3	X		X			X			X			X
		Pharmacognosy- II	3	Х											X
		Pharmacology- II	3	Х					Х			Х		X	X
		Research Methodology	1	Х											X
	1	Microbiology and Parasitology	3	Х										X	
		Field Training- I	2	Х	X	Х	Х	Х	Х	Х	X	Х	X	X	X
		Pharmaceutics- IV	3	Х		X			X			Х			X
2		Pharmacology- III	3	Х					Х			X		X	X
		Medical Equipments & Materials	1	X		X							X	X	
		Health statistics	1	X							X	X			X
		Medicinal Chemistry- I	3	Х						X		X			X
	2	Toxicology	3	Х						X		Х			X
		Field Training- II	3	X	X	X	X	X	X	X	X	X	X	X	X
		Medicinal Chemistry II	3	Х						Х		Х			X
		Clinical pharmacy	2	Х				Х	Х			Х		X	X
3		Quality control	3	Х		X	X			Х	X	Х	X		X
		Pharmacology IV	3	Х					Х			Х		X	X
		Industrial Pharmacy	3	Х		X			X			Х	X		X
		Pharmaceutical Microbiology	1	X										X	

	1	Field Training- III	2	Х	Х	Х	X	Х	Х	X	Х	Х	X	X	X
		Community pharmacy	2	Х				Х	Х			X		X	X
		Pharmacology - V	3	Х					X			X		X	X
		Quality assurance	1	Х		Х	X			X	Х	Х	X		X
		Drug management and supply	2	Х		Х	X			X	Х	Х	X	X	X
	2	Graduation project	2	Х	Х	Х	X	Х	Х		Х	Х	X	X	X
		Field Training- IV	5	Х	Х	Х	X	Х	Х	X	Х	Х	X	X	Х

# **PROGRAMME COURSES**

1- L	evel/year of Programme: 1	Semester: 1					
Code	Course Title	No. of	No. of l Lect.	Program ILOs			
No.		Units	Lett.	Pract.	Covered		
1.	Anatomy		2	-			
2.	Physiology		2	-			
3.	Physical pharmacy		2	1			
4.	Analytical chemistry		2	1			
5.	English language and Medical Terminology		2	-			
6.	First Aid		1	1			
7.	Botany		2	1			
8.	Islamic ethics		1	-			
9.	Pharmaceutics I		2	1			
10.	Arabic language		1	-			
	Total		17	5			
	1 0 m		2				

#### 2- Level/year of Programme: 1

#### Semester: 2

Code	Course Title	No. of	No hr/v	Program ILOs	
No.		Units	Lect.	Pract.	Covered
1.	Pharmaceutics II		2	1	
2.	Community health		2	-	
3.	Pathology		2	-	
4.	Psychology		1	-	
5.	Organic chemistry		2	1	
6.	Pharmacology I		2	1	
7.	Pharmacognosy I		2	1	
8.	Computer		-	1	
9.	English language and Medical Terminology		2	-	
	Total		15	5	
			2		

<b>4-</b> L	evel/year of Programme: 2		Semester: 1					
Code	Course Title	No. of		o. of week	Program ILOs			
No.		Units	Lect.	Pract.	Covered			
1.	Biochemistry		2	1				
2.	Pharmaceutics III		2	1				
3.	Pharmacognosy II		2	1				
4.	Pharmacology II		2	1				
5.	Research Methodology		1	-				
	Microbiology and Parasitology		2	1				
6.	Field training		-	2				
	Total		9	6				
	L VIII		1	8				

# 4- Level/year of Programme: 2

Semester: 2

Code	Course Title	No. of		). of week	Program ILOs
No.		Units	Lect.	Pract.	Covered
1.	Pharmaceutics IV		2	1	
2.	Pharmacology III		2	1	
3.	Medical equipments and materials		1	-	
4.	Health statistics		1	-	
5.	Medicinal chemistry I		2	1	
6.	Toxicology		2	1	
7.	Field training		-	3	
	Total		10	7	
	1 otur		1	7	

5- Le	evel/year of Programme: 3		Se	mester:	1
Code	Course Title	No. of		). of week	Program ILOs
No.		Units	Lect.	Pract.	Covered
1.	Medicinal chemistry II		2	1	
2.	Clinical pharmacy		1	1	
3.	Quality control		2	1	
4.	Pharmacology IV		2	1	
5.	Industrial pharmacy		2	1	
6.	Pharmaceutical microbiology		1	-	
7.	Field training		-	2	
	Total		10	7	
	- · · · · · ·		1	7	

# 6- Level/year of Programme: 3

Semester: 2

Code	Course Title	No. of		o. of week	Program ILOs
No.		Units	Lect.	Pract.	Covered
1.	Community pharmacy		1	1	
2.	Pharmacology V		2	1	
3.	Quality assurance		1	-	
4.	Drug management and supply		2	-	
5.	Graduation project		-	2	
6.	Field training		-	5	
	Total	6	9		
			1	.5	

# البرامج المماثلة (المرجعيات): 1-

 University of Sciences and Technology, Pharmacy Technician Diploma, Yemen

https://ust.edu/faculty-of-medicine-and-health-sciences/pharmacytechnician-diploma/

- 2- University of Doha for Sciences and Technology, Diploma in Pharmacy Technology, Qatae <u>https://ust.edu/faculty-of-medicine-and-health-</u> sciences/pharmacy-technician-diploma/
- 3- King Abdulaziz University, Intermediate Diploma for Pharmacy Technician, KSA

https://www.kau.edu.sa/Content-156-AR-4055

 4- Modern University College, Intermediate Diploma in Pharmacy, Palestine

https://www.muc.edu.ps/Program/Major/pharmacist%20assistant

### **Teaching and Learning Strategies**

- Active Lectures,
- Group Discussion and Activities
- Practical Sessions,
- Brain Storming
- Field Training in Community Pharmacies
- Field Training in Hospitals
- Simulated Software Program
- Computer and Web-Based Learning,
- Use of Communication and Information Technology,
- Self-Learning.

### **Assessment Tools**

- Short Essays,
- Written Exams

- Oral Exams
- Oral Presentation
- Multiple Choice Questions (MCQs),
- Assignments
- Report/Project Sessions
- Quiz
- Coursework Activities
- Simulations, such as Computer-Based Clinical Scenarios,
- Practical Lab Assessments,
- Practical Lab Reports,
- Problem Solving Exercise
- Work samples, such as community pharmacy Practice Manual