

# Al-Bayan

# University

# Faculty of

# Pharmacy



## Speech of the Dean of the College of Pharmacy

May Allah's peace, mercy and blessings be upon you!

The Faculty of Pharmacy at Al-Bayan University is one of the basic scientific tributaries of pharmaceutical specialties, as it was established in 2016 and adopted the approach of academic sobriety and relied on spreading the features of modern pharmaceutical sciences to be an effective college and have a distinguished role in advancing science and be the forerunner in keeping pace with development and sophistication and catching up with the wheel of change and rapid progress in the world,



to make this society keep pace with these developments and have a high ability to deal with them and respond diligently to their secretions in aspects of Different life and invests in the process of construction, development and comprehensive development in various fields and its desire to occupy the center of scientific leadership.

On these ancient steps, the Faculty of Pharmacy has set its sights on the importance of science and the development of the educational process and learning in all pharmaceutical disciplines in line with the movement of tremendous technological development in the world, as the curricula of the Faculty of Pharmacy have been prepared in line with the special developments in the pharmacy profession and the college's ability to produce a graduate student product that enjoys a sober scientific and is able to meet the requirements of the professional market in various fields, including pharmaceutical manufacturing and clinical pharmacy in hospitals and dispensaries. And in the centers of scientific research and quality control and in providing pharmaceutical and therapeutic consultations to all classes of society defying all circumstances and obstacles, as the student of the Faculty of Pharmacy is characterized by unique scientific knowledge mixed with sobriety and cultural advancement.

With it, the faculty's teachers and researchers continue their efforts to keep pace with science and immunize students with modern information, achieving the highest distinguished grades of scientific and practical products.

**In conclusion, I can only extend to the ladies and gentlemen of the faculty members all thanks and appreciation, accompanied by prayers for them for their families and for the sons of our beloved country.**



**Dr. Hassanein Sakban Taghir**

**Dean of the Faculty of Pharmacy / Vice Deanship**

#### **Vision of the College of Pharmacy:**

The Faculty of Pharmacy is an educational and research institution of public benefit, whose goal is human health through high-quality pharmaceutical education and to prepare qualified pharmacists with scientific and professional capabilities and skills that qualify them to serve the community within health institutions and pharmaceutical factories, as well as spreading health culture and health awareness.

#### **College Mission:**

Preparing qualified pharmaceutical competencies with specialized knowledge, professional skills, and ethical values to meet the needs of the labor market through a distinguished academic environment and promising scientific research.

### College Objectives:

1. Improving the college curriculum and developing it continuously to reach the scientific levels and in line with the labor market.
2. Establishing a total quality management system and seeking institutional and program academic accreditations.
3. Communication, cooperation, and partnership with the corresponding institutions in all fields.
4. Providing scientific consultations to relevant ministries and state institutions and the private sector.
5. Reaching international standards in pharmaceutical education.

### Quality Policy

The College of Pharmacy at Al-Bayan University seeks leadership and excellence in the educational, research and community service process to contribute to providing experienced and scientifically capable pharmacists to serve health institutions, educate patients and educate them on the optimal use of medicines and monitor the occurrence of drug interactions between treatments used for the purpose of reducing collateral damage caused by these interventions.

In addition to providing the community with professional pharmacists who can work in the private sector, including pharmacies, pharmaceutical factories, and pharmaceutical media in scientific offices to import medicines and develop their communication skills.

Believing in the importance of providing distinguished educational services, the Deanship of the College is committed to the following:

- 1- The Deanship of the College of Pharmacy and all its teachers, doctors, technicians, and administrative staff are committed to

By applying the requirements of quality management systems in general and the requirements of ISO 9001 in all college laboratories, departments, and branches.

The College of Pharmacy at Al-Bayan University is committed to graduating leaders in the pharmacy profession by providing high-quality education and striving to produce research that has an impact on society and elevate the profession of pharmacist and its role.

- 2- The College of Pharmacy at Al-Bayan University adopts the best training methods according to international standards to provide the best treatment services to the local community and comprehensive knowledge of the legal and ethical dimensions related to pharmaceutical products.
- 3- Consolidating and supporting the principles of improvement of educational services and the importance of continuous development, so it has adopted mechanisms of continuous development and training at all levels and specializations and for all academic, technical, and administrative workers in it.
- 4- The college continues to provide the best infrastructure and permanent maintenance and prepare suitable work environments for all its employees, students, and visitors and in all branches.
- 5- The college provides a supportive environment and optimal use of available resources and achieves partnership with various community institutions interested in providing medical services.
- 6- The college is committed to graduating highly qualified pharmacists according to advanced educational curricula directed to the needs of society.
- 7- Attracting distinguished competencies and developing their capabilities through continuous training, creating a stimulating work environment, and spreading the spirit of one team.

#### [Metadata of the College of Pharmacy / Al-Bayan University](#)

Institution Name: Faculty of Pharmacy

Type of Institution: Private College

Name of the University to which the institution belongs: Al-Bayan University

University Type: Private

Geographical location: Baghdad - Karkh - Saidiya

#### [Website](#)

The study started at the college for the year: 2016

Duration of study for preliminary studies to obtain a bachelor's degree: five years

Language of Study: English

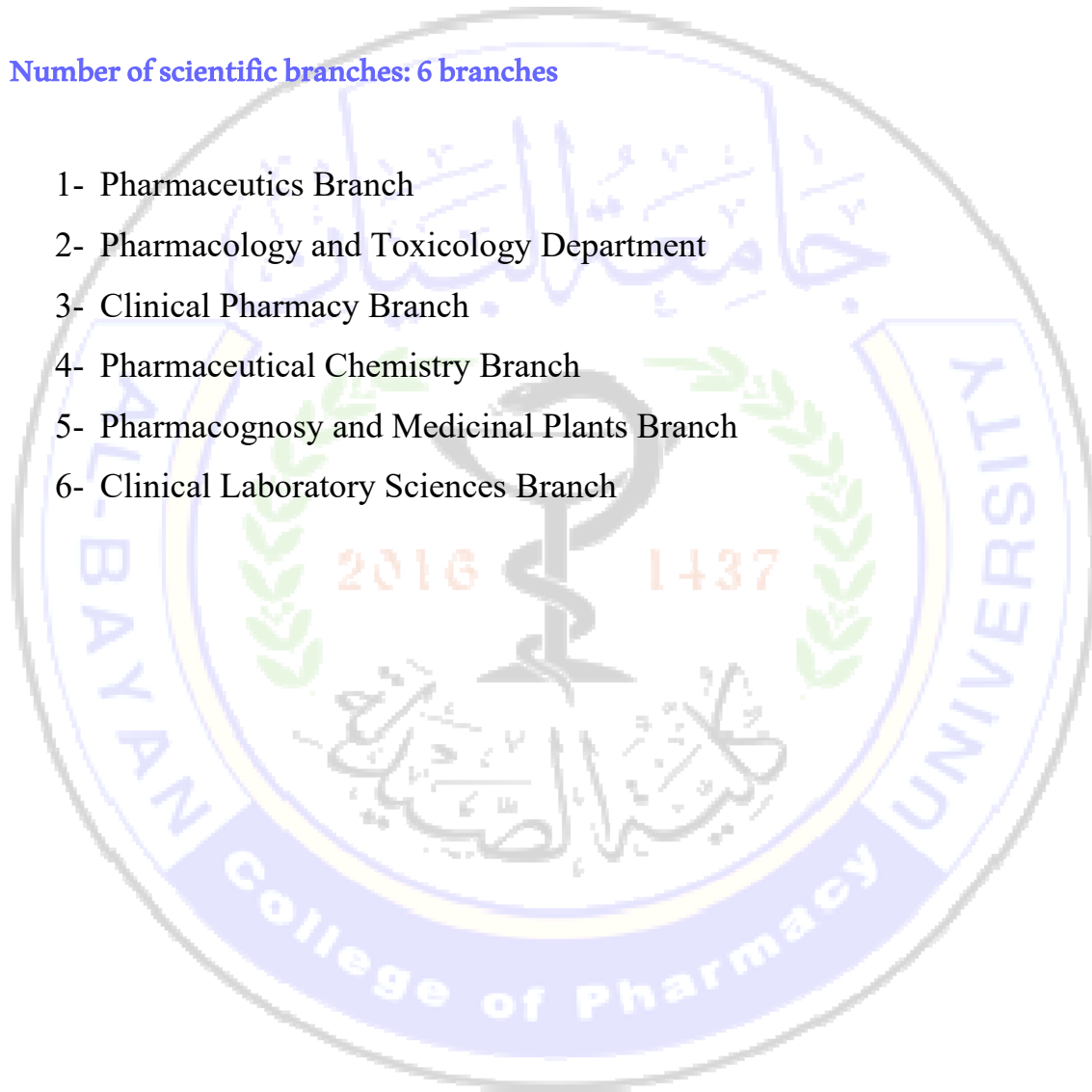
**Academic Leadership:**

md. Hassanein Sakban Taghi Dean of the College

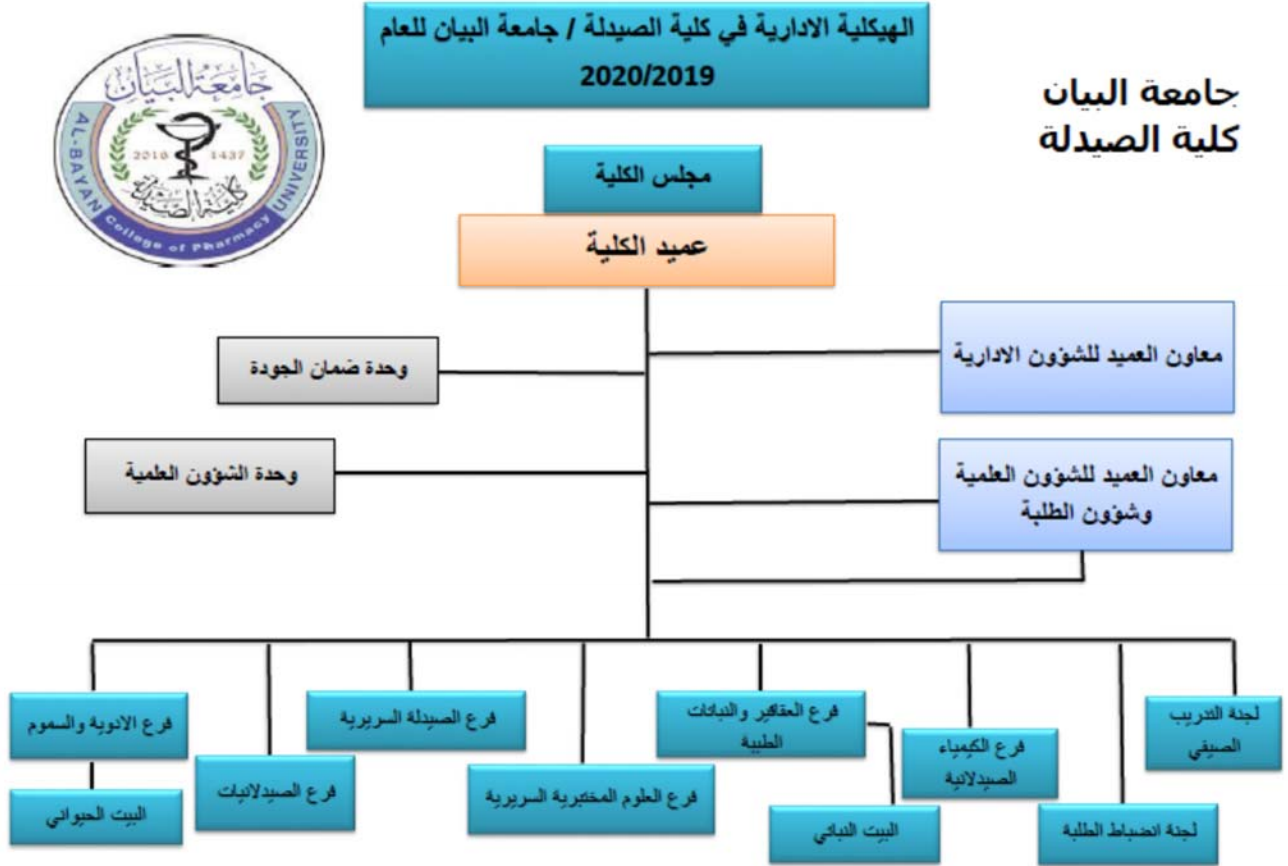
md. Atheer Sabah Abboud Assistant Dean for Administrative Affairs

**Number of scientific branches: 6 branches**

- 1- Pharmaceutics Branch
- 2- Pharmacology and Toxicology Department
- 3- Clinical Pharmacy Branch
- 4- Pharmaceutical Chemistry Branch
- 5- Pharmacognosy and Medicinal Plants Branch
- 6- Clinical Laboratory Sciences Branch



## Organizational Structure of the College of Pharmacy / Al-Bayan University



### Students:

#### Admission (regulations related to college enrollment):

The admission criteria include students who have a certain GPA according to the central admission system as well as students who have physical, mental, and social ability to manage any medical condition or practice required by the study. As well as accepting students in the channels available by the Ministry of Higher Education and Scientific Research, including the channel of the families of martyrs, free grants, and the children of professors.



## Total number of students for preliminary studies for the year: 2020/2021

### Undergraduate students:

968 Iraqi students

(Number of males = 387 students, number of females = 581 students)

• Number of students of the first stage = 199 students

(number of females = 124 students, Number of males = 75 students)

• Number of students of the second stage = 232

(Number of males = 97 students, number of females = 135 students)

• Number of students of the third stage = 203

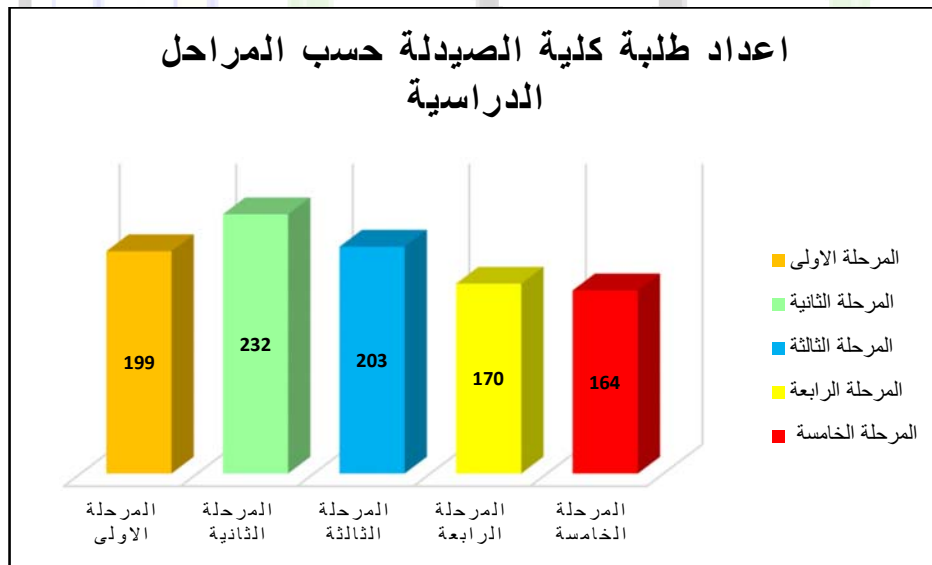
(Number of males = 78 students, number of females = 125 students)

• Number of students of the fourth stage = 170

(Number of males = 75 students, number of females = 95 students)

• Number of fifth stage students = 164

(Number of males = 62 students, number of females = 102 students )



### Academic Program Description:

This academic program description provides a summary of the most important characteristics of the program and the learning outcomes expected of the student to achieve, proving whether he has made the most of the available opportunities. It is accompanied by a description of each course within the program

Ministry of Higher Education and Scientific Research	1. Educational institution
Al-Bayan University / College of Pharmacy	2. Scientific Department / Center
Faculty of Pharmacy	3. Name of academic or vocational program
Bachelor of Pharmaceutical Sciences	4. Final Certificate Name
Quarterly	5. Academic System: Annual / Decisions / Other
Training courses to develop students' professional skills / summer training for two consecutive academic years	6. Other external influences
2019-2020	7. History of the preparation of the description
<p>8. Objectives of the Academic Program</p> <p>The Faculty of Pharmacy was established in 2016 and aims to prepare specialized and capable pharmaceutical cadres</p> <p>The college is keen to train students clinically in the hospital lobbies and laboratories, in addition to teaching them in various scientific and applied laboratories and the duration of study in the college is five years so that students become able and able to calculate drug doses and know the appropriate pharmaceutical formulation, side risks and therapeutic interventions. In addition:</p>	
1. Teaching students the principles of pharmacy and pharmaceutical calculations	
2. Teaching students the Physico-chemical properties of medicines and additives in the preparation of various pharmaceutical formulations	

3. Teaching students the rules of technology in the composition of pharmaceutical products
4. Teaching students life pharmacy and the pharmacokinetics of drugs in the body
5. Teaching students the processes of manufacturing different drug doses and methods of evaluating them
6. Teaching students the basics of drug dose design
7. Teaching students pharmaceutical biotechnology
8. Teaching students the rules of training in pharmacies and dispensing prescriptions
9. Teaching students the physiology and anatomy of the human body, how medicine works and how it affects the body
10. Teaching students' clinical pharmacy, therapeutics, community health and pharmacy ethics
11. Teaching students' general toxicology and clinical toxicology to know the optimal treatment for poisoning cases
12. Supervising graduation projects

12. Required Program Outcomes and Teaching, Learning and Assessment Methods
<p>A-A cognitive objectives.</p> <p>B1 – Enhancing the ethics of the profession and dealing with patients among graduates</p> <p>B2 – Students acquire various therapeutic skills</p> <p>B3 - Promote the principle of lifelong learning to continue to develop the profession.</p>
9. Teaching and learning methods
<p>1. Lecturing</p> <p>2. Showing scientific films</p> <p>3. Conducting scientific experiments</p>

4. Writing scientific reports on topics related to the vocabulary of the study material by students
5. Conduct research and how to present results
6. Training in private pharmacies
7. Make scientific posters

#### 10. Evaluation methods

- 1 - Semester exams
- 2 - Short exams
3. Oral discussions and examinations
- 4 - Evaluation of students' technical and practical skills during scientific sessions
5. Final Exams

#### C- Emotional and value goals:

- C1- Discussions in small groups
- C2- Presentation of research results
- C3- Small scientific projects

#### 11. Teaching and learning methods

Using the smart board, showing scientific films, and conducting practical experiments

#### 12. Evaluation methods

- Theoretical tests.
- Oral exams.
- Laboratory practical tests.
- Mannequin practical tests.
- Practical tests on patients.
- Reports and studies.

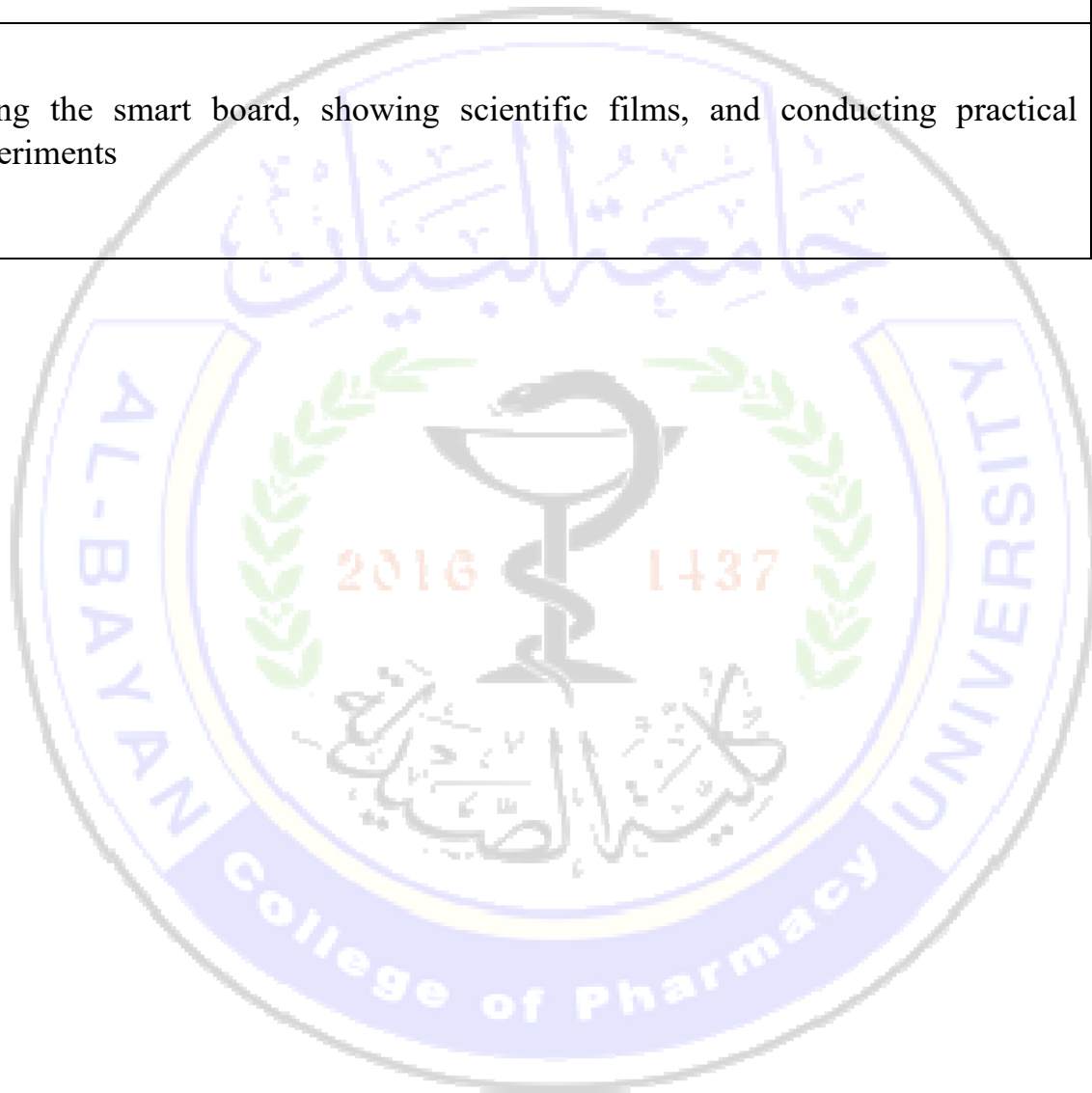
d. General and qualifying skills transferred (other skills related to employability and personal development).

D1 Use the Internet as a source of scientific information

D2 Doing desk research on scientific articles

Teaching and learning methods

Using the smart board, showing scientific films, and conducting practical experiments



## Curricula and Units:

مواد المرحلة الدراسية الاولى					
الفصل الدراسي الأول					
عدد الوحدات	عدد الساعات		رمز المادة	اسم المادة	
	عملي	نظري			
3	2	2	40111	علم الاحياء البشري	Human biology
2	0	2	40112	مبادئ الممارسة الصيدلانية	Principles of Pharmacy Practice
4	2	3	40113	الكيمياء التحليلية	Analytical Chemistry
1	2	0	40114	علوم الحاسوب 1	Computer Sciences I
3	0	3	40115	رياضيات و احصاء حيوي	Mathematics and Biostatistics
1	0	1	40116	مصطلحات طبية	Medical Terminology
2	0	2	40117	اللغة الانكليزية 1	English Language I
3	0	3	....	اللغة العربية	Arabic Language
19					
مواد المرحلة الدراسية الاولى					
الفصل الدراسي الثاني					
عدد الوحدات	عدد الساعات		رمز المادة	اسم المادة	
	عملي	نظري			
2	2	1	40127	تشریح بشري	Human Anatomy
3	2	2	40128	حسابات صيدلانية	Pharmaceutical Calculations
3	2	2	40129	فيزياء طبية	Medical Physics
4	2	3	401210	كيمياء عضوية 1	Organic Chemistry I
3	2	2	401211	علم الانسجة	Histology
1	0	1	401212	حقوق انسان	Human Rights
2	0	2	401213	اللغة الانكليزية 2	English Language II
1	2	0	401214	علوم الحاسوب 2	Computer Sciences II
19					

مواد المرحلة الدراسية الثانية

الفصل الدراسي الأول					
عدد الوحدات	عدد الساعات		رمز المادة	اسم المادة	
	عملي	نظري			
4	2	3	40211	كيمياء عضوية 2	Organic Chemistry II
4	2	3	40212	علم الأحياء الدقيقة الطبية 1	Medical Microbiology I
4	2	3	40213	صيدلة فيزيولوجية 1	Physical Pharmacy I
4	2	3	40214	فسلجة 1	Physiology I
1	0	1	40215	ديمقراطية	Democracy
2	0	2	40216	اللغة الانكليزية 3	English Language III
1	2	0	40217	علوم الحاسوب 3	Computer science III
20					

مواد المرحلة الدراسية الثانية

الفصل الدراسي الثاني					
عدد الوحدات	عدد الساعات		رمز المادة	اسم المادة	
	عملي	نظري			
4	2	3	40226	كيمياء عضوية 3	Organic Chemistry III
4	2	3	40227	علم الأحياء الدقيقة الطبية 2	Medical Microbiology II
4	2	3	40228	صيدلة فيزيولوجية 2	Physical Pharmacy II
4	2	3	40229	فسلجة 2	Physiology II
4	2	3	402210	علم العقاقير 1	Pharmacognocny I
1	0	2	402211	اللغة الانكليزية 4	English Language IV
1	2	0	402212	علوم الحاسوب 4	Computer Sciences IV
22					

مواد المرحلة الدراسية الثالثة

الفصل الدراسي الأول					
عدد الوحدات	عدد الساعات		رمز المادة	اسم المادة	
	عملي	نظري			
3	2	2	40311	كيمياء صيدلانية لاعضوية	Inorganic Pharmaceutical Chemistry
3	2	2	40312	علم العقاقير 2	Pharmacognosy II
4	2	3	40313	صيدلة تكنولوجيا 1	Pharmaceutical Technology I
4	2	3	40314	كيمياء حيوية 1	Biochemistry I
4	2	3	40315	علم الامراض	Pathophysiology
2	0	2	40316	اللغة الانكليزية 5	English Language V
20					

مواد المرحلة الدراسية الثالثة

الفصل الدراسي الثاني					
عدد الوحدات	عدد الساعات		رمز المادة	اسم المادة	
	عملي	نظري			
4	2	3	40326	كيمياء صيدلانية عضوية	Organic Pharmaceutical Chemistry I
3	0	3	40327	علم الادوية 1	Pharmacology I
4	2	3	40328	صيدلة تكنولوجيا 2	Pharmaceutical Technology II
4	2	3	40329	كيمياء حيوية 2	Biochemistry II
3	2	2	403210	علم العقاقير 3	Pharmacognosy III
1	0	1	403211	اخلاقيات الصيدلة	Pharmacy Ethics
19					



مواد المرحلة الدراسية الرابعة

الفصل الدراسي الأول

عدد الوحدات	عدد الساعات		رمز المادة	اسم المادة	
	عملي	نظري			
4	2	3	40411	علم الادوية 2	Pharmacology II
4	2	3	40412	كيمياء صيدلانية عضوية 2	Organic Pharmaceutical Chemistry II
3	2	2	40413	صيدلة سريرية 1	Clinical Pharmacy I
3	2	2	40414	الصيدلة الحيوية والدوائية	Biopharmaceutics
2	0	2	40415	صحة عامة	Public Health
16					

مواد المرحلة الدراسية الرابعة

الفصل الدراسي الثاني

عدد الوحدات	عدد الساعات		رمز المادة	اسم المادة	
	عملي	نظري			
2	0	2	40426	علم الادوية 3	Pharmacology III
4	2	3	40427	كيمياء صيدلانية عضوية 3	Organic Pharmaceutical Chemistry III
3	2	2	40428	صيدلة سريرية 2	Clinical Pharmacy II
3	2	2	40429	علم السموم العام	General Toxicology
4	2	3	404210	صيدلة صناعية 1	Industrial Pharmacy I
2	0	2	404211	مهارات التواصل	Communication Skills
18					

مواد المرحلة الدراسية الخامسة

الفصل الدراسي الأول

عدد الوحدات	عدد الساعات		رمز المادة	اسم المادة	
	عملي	نظري			
2	0	2	40511	كيمياء صيدلانية عضوية 4	Organic Pharmaceutical Chemistry IV
4	2	3	40512	صيدلة صناعية 2	Industrial Pharmacy II
3	0	3	40513	العلاجات التطبيقية 1	Applied Therapeutics I
4	2	3	40514	كيمياء سريرية	Clinical Chemistry
2	4	0	40515	التدريب المخبري السريري	Clinical Laboratory Training
3	2	2	40516	علم السموم السريرية	Clinical Toxicology
1	0	1	40517	مشروع التخرج	Project
19					

مواد المرحلة الدراسية الخامسة

الفصل الدراسي الثاني

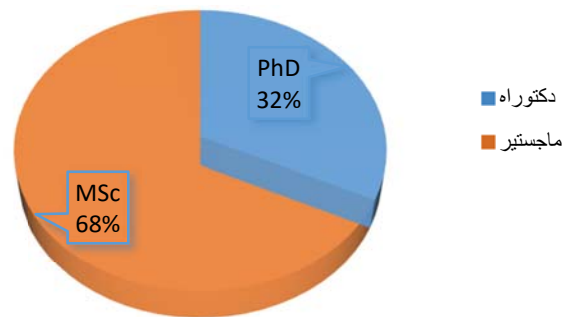
عدد الوحدات	عدد الساعات		رمز المادة	اسم المادة	
	عملي	نظري			
2	0	2	40527	اقتصاديات الدواء	Pharmacoeconomics
2	0	2	40528	العلاجات التطبيقية 2	Applied Therapeutics II
3	2	2	40529	مراقبة الأدوية العلاجية	Therapeutic Drug Monitoring
4	2	3	405210	تحليل صيدلانية متقدمة	Advanced Pharmaceutical Analysis
2	4	0	405211	تدريب مستشفيات	Hospital Training
2	0	2	405212	تصميم الدواء	Dosage Form Design
1	0	1	405213	تقنيات حيوية	Pharmaceutical Biotechnology
16					

### Affiliates of the College of Pharmacy / Al-Bayan University:

The number of teaching staff = 28 teachers

- By sex: number of males = 17 Number of females = 11
- According to scientific titles: professor number = 4, assistant professor = 2, teacher number = 5 , Assistant Lecturer = 17
- By degree: PhD holders = 9 master's degree holders = 19
- According to scientific disciplines:
  - Pharmacology and Toxicology Branch: 8
  - Pharmaceutics Branch: 6
  - Pharmacognosy and Medicinal Plants Branch: 2
  - Pharmaceutical and Organic Chemistry Branch: 6
  - Clinical Pharmacy Branch: 2
  - Clinical Laboratory Sciences Branch: 2

#### الملاك التدريسي لكلية الصيدلة حسب الشهادة العلمية





#### Scientific Research:

Total number of published research = 33 research papers

Number of research accepted for publication = 4 research papers

#### Commissions:

1. Examination Committee
2. Examination Audit Committee
3. Scientific Committee
4. Educational Guidance Committee
5. Scientific Clearing Committee
6. Follow-up Committee for Charitable Activities and Events
7. Electronic Classes Follow-up Committee
8. Student Discipline Committee

### Academic Infrastructure and Facilities:

The number of classrooms is 6 classrooms

The number of laboratories of the Faculty of Pharmacy is 7 laboratories

A large central hall for events, conferences, seminars, and scientific workshops

Central library and central student club

### Weekly schedules:

البرحة الأولى -- لفصل الدراسي الأول (2020-2021) - كلية الصيدلة		جدول الدروس الأسبوعي				
اليوم	9.30 - 8.30	10.30 - 9.30	11.30 - 10.30	12.30 - 11.30	1.30 - 12.30	2.30 - 1.30
النظري	السبت	Principles of Pharmacy Practice أ.د. ياسر عبد الغيم 160	Medical Terminology أ.د. صباح ناصر 165	م.د. وفاء محمد جاسم	Mathematics and Biostatistics 155	
	الأحد	Analytical Chemistry أ.د. ناظر نجم 150	Human biology أ.د. اسماعيل طه 120	Computer Sciences م.د. حيدر ايداد 85		
العملي	الاثنين	Analytical Chemistry Group A م.م. شهباء شفيق م.م. حيدر جبار 78	Human biology Group A م.م. ايهاب ايداد 63	Computer Sciences Group A م.م. حيدر ايداد 52		
	الثلاثاء			English Language ( نظري ) 110		
العملي	الأربعاء	Analytical Chemistry Group B م.م. شهباء شفيق م.م. حيدر جبار 78	Human biology Group B م.م. ايهاب ايداد 63	Computer Sciences Group B م.م. حيدر ايداد 52		
<p>* تكون محاضرات (الجانب النظري و العملي) عبر المنصة الالكترونية الخاصة بالجامعة وفي التوقيتات المحددة</p> <p>* الخميس : عطلة الكلية الرسمية</p> <p>* يبدأ العمل به ابتداءً من يوم الأحد 14/2/2020</p>						
<p>م. د. حسنين صكيان طاغي عميد كلية الصيدلة / وكالة</p>						







**المرحلة الرابعة -- الفصل الدراسي الأول (2021-2020) - كلية الصيدلة**

**جدول الدروس الأسبوعي**

اليوم	9.30 - 8.30	10.30 - 9.30	11.30 - 10.30	12.30 - 11.30	1.30 - 12.30	2.30 - 1.30	
النظري - الالكتروني	السبت	م.م. امير حسين Organic Pharmaceutical Chemistry II			م.د. اثر الصباح Pharmacology II		
		89			85		
الاحد	الاثنين	م.م. اخلص خماس Clinical Pharmacy I		م.م. خالد محمد Pharmacology II Group A		م.م. براء غسان Organic Pharma. Chemistry II Group B	
		68		65		68	
العملية - الالكتروني	الثلاثاء	م.م. كيلاي اسماعيل Biopharmaceutics Group A		م.م. براء غسان Organic Pharma. Chemistry II Group B		م.م. محمد خالد Pharmacology II Group A	
		45		68		65	
		م.م. حسن علاء Clinical Pharmacy I Group B		م.م. كيلاي اسماعيل Biopharmaceutics Group B		م.م. براء غسان Organic Pharma. Chemistry II Group A	
	51		68		65		
	الاربعاء	م.م. كيلاي اسماعيل Biopharmaceutics Group B		م.م. براء غسان Organic Pharma. Chemistry II Group A		م.م. محمد خالد Pharmacology II Group B	
		45		68		65	
م.م. حسن علاء Clinical Pharmacy I Group A		م.م. كيلاي اسماعيل Biopharmaceutics Group A		م.م. براء غسان Organic Pharma. Chemistry II Group B			
51		68		65			

\* تكون محاضرات (الجانب النظري و العملي) عبر المنصة الالكترونية الخاصة بالجامعة وفي التوقيتات المحددة  
 \* الخميس : عطلة الكلية الرسمية  
 \* يبدأ العمل به ابتداءً من يوم الاحد 14/2/2020

م. د. حسنين صكبان طاغي  
 عميد كلية الصيدلة / وكالة



**المرحلة الخامسة -- الفصل الدراسي الأول (2021-2020) - كلية الصيدلة**

**جدول الدروس الأسبوعي**

اليوم	9.30 - 8.30	10.30 - 9.30	11.30 - 10.30	12.30 - 11.30	1.30 - 12.30	2.30 - 1.30	
النظري - الالكتروني	السبت	م.م. علي Organic Pharmaceutical Chemistry III			م.م. فرقان محمد Clinical Toxicology		
		49			43		
الاحد	الاثنين	م.م. مصطفى رعد Industrial Pharmacy II		م.م. نوران تقي + م.م. شهاب احمد Clinical Chemistry Group A		م.م. عمير داوود Clinical Chemistry	
		45		75		58	
العملية - الالكتروني	الثلاثاء	م.م. اثر الصباح Applied Therapeutics I		م.م. نوران تقي + م.م. شهاب احمد Clinical Chemistry Group B		م.م. عمير داوود Clinical Chemistry	
		68		75		58	
		م.م. براء غسان Organic Pharma. Chemistry II Group A		م.م. نوران تقي + م.م. شهاب احمد Clinical Chemistry Group B		م.م. عمير داوود Clinical Chemistry	
	68		75		58		
	الاربعاء	م.م. براء غسان Organic Pharma. Chemistry II Group B		م.م. نوران تقي + م.م. شهاب احمد Clinical Chemistry Group A		م.م. عمير داوود Clinical Chemistry	
		68		75		58	
م.م. براء غسان Organic Pharma. Chemistry II Group A		م.م. نوران تقي + م.م. شهاب احمد Clinical Chemistry Group B		م.م. عمير داوود Clinical Chemistry			
68		75		58			

\* تكون محاضرات (الجانب النظري و العملي) عبر المنصة الالكترونية الخاصة بالجامعة وفي التوقيتات المحددة  
 \* الخميس : عطلة الكلية الرسمية  
 \* يبدأ العمل به ابتداءً من يوم الاحد 14/2/2020

م. د. حسنين صكبان طاغي  
 عميد كلية الصيدلة / وكالة



### Benefits of Good Laboratory Practices (GLP):

1. Upgrading the level of educational laboratories.
2. Increase confidence in test and measurement results.
3. Increase the confidence of the educational institution's management in the quality of the performance of its educational product.
4. Controlling the procedure that does not conform to calibration or testing through the procedural method of corrective action and preventive action.
5. Achieving continuous development and improvement.

### Procedural methods required for a good laboratory:

#### First. Administrative procedural methods

1. Corrective action.
2. Preventive action.
3. Control records and documents.
4. Internal Audit.
5. Administrative review.

#### Secondly. Technical procedural methods

1. General requirements.
2. Laboratory staff / training.
3. Environmental equipment and conditions.
4. Methods of testing, calibration, and verification of their correctness.
5. Devices.

#### III. Required Evidence

1. Guide to Testing and Testing Methods i.e., Laboratory Practices
2. Work instruction manual.
3. Procedures Manual.
4. Quality Guide.

Axis Number: First  
 Axis Name: Organization & Staff / Laboratory

Conformity and score

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
						v	Determine the tasks, duties, responsibilities, and authority (job description) accurately at the level of laboratory staff and be declared and documented 1
						v	And set a laboratory quality policy to achieve all employees and their responsibilities 2

							<p>lities towards the quality of results and customer satisfaction and be announced at the entrances to the laboratories</p>	
						v	<p>The laboratory administration announces its pledge to the higher administrative authorities and beneficiaries of the educational institution in achieving quality assurance of training for students, provided that the pledge is documented and announced</p>	3

						v	The undertaking includes the ability of the laboratory management to secure all the requirements of good laboratory practice in the effectiveness of the laboratory and activate its scientific procedures in accordance with the requirements of GLP standards.	4
						v	Application of best scientific practices by laboratory management in quality control through laboratory tests, implementation,	5

							monitoring, registration, and archiving	
						✓	Determine the administrative structure, the representative of the laboratory quality management and the location of the educational system	6
						✓	The laboratory management sets the vision, mission, and objectives of laboratories with common goals according to the specialization	7
						✓	Determine the administrative	8

							structure and representative of the laboratory quality management and the location of the laboratory of the educational organization
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**Gap measurement**  
**(Analysis of the results of the audit of the first axis)**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
						√	Weights
						8	Duplicate
						48	Total
$48/8 = 6$ $6/6 * 100 = 100\%$							Weighted arithmetic mean
$100\% * 11 = 11$							Percentage of matching extent

**Axis Number: Second**  
**Axis Name: Quality Assurance Program**

**Conformity and score**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards

				✓			The laboratory management is working on developing an actual plan for self-evaluation and analysis of the results of the effects	1
						✓	A semi-annual internal audit plan is developed for the comprehensive program in laboratory procedures and practices.	2
						✓	Training staff thoroughly on the application of quality control and assurance requirements in laboratories and on all laboratory practices	3
				✓			Laboratory management plays an active role in monitoring incorrect or inaccurate	4



							analytical results and developing corrective actions for them, as well as its commitment to developing and implementing the management system and achieving improvement.	
		2016			+32	✓	The laboratory management works to make the daily work program systematic and organized to achieve technical efficiency in the performance of practices, tasks and functions assigned to employees and to indicate the distribution of roles and	5

							responsibilities in the quality manual	
				✓			<p>Activating the laboratory audit procedure within a semi-annual period to identify deviations in performance , develop procedures and solutions to address them, and develop and improve performance to ensure the laboratory management system integrity when planning and implementing changes under the audit report</p>	6

**Gap measurement  
(Analysis of the results of the audit of the second axis)**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
				√		√	Weights
				3		3	Duplicate
				12		18	Total
$30/6 = 5$ $5/6 * 100 = 83.3\%$							Weighted arithmetic mean
$83.3\% * 8 = 6.66$							Percentage of matching extent

**Axis Number: Third**  
**Axis Name: Facilities**

**Conformity and score**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards	
						✓	Providing individual protection supplies for students in the laboratory and training them to use them	1
			2010		+37	✓	Securing life protection organizations from good ventilation, lighting, ground grounding, fire extinguishing systems, alarm sensors and self-extinguishing, according to the characteristics of the laboratory and within its programs	2

							Degree of severity	
						✓	Placing indicative and warning signs for laboratory safety inside and outside the laboratory to raise awareness of the direction of risks	3
						✓	First aid fund insurance and guidance in emergency cases when dealing with chemical, physical, biological, mechanical, or electrical hazards	4
						✓	Securing sufficient spaces in the design of laboratories in terms of the number of students and experiments and whether the laboratory is designed according to the national	5

							standards announced in the Ministry of Higher Education and Scientific Research	
						✓	Training laboratory staff and supervisors on the use of fire brigades according to their characteristics and field of use	6
			2010		+37	✓	The containers are of the closed type and there is a program to remove their contents after each actual daily laboratory practice	7
						✓	Ensure the application of the maintenance program of ventilation and lighting systems based on the degree of laboratory risks or set a	8

							timetable for preventive and curative maintenance	
			✓				The laboratory is divided into a sample reception room, a laboratory analysis room, and another room	9

**Gap measurement  
(Analysis of the results of the audit of the third axis)**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
		✓				✓	Weights
		2				8	Duplicate
		2				48	Total
$50/10 = 5$ $5/6 * 100\% = 83.3\%$							Weighted arithmetic mean
$83.3\% * 13 = 10.8$							Percentage of matching extent

**Axis Number: IV**

**Axis Name: Devices / Standard Solutions / Chemical, biological or Physical Materials**

**Conformity and score**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards	
						✓	Coding the devices and recording all the required data in this regard on them (manufacturer, year of manufacture, company name .... etc.).	1
						✓	Setting a schedule for calibration of laboratory equipment and equipment.	2
✓							Data on devices and equipment is subject to a centralized database building	3



							program at the laboratory level.	
			✓				Chemical and biological laboratory materials are stored according to the global material storage system, and chemical and biological materials are coded according to the American NEPA system for fire and accident protection.	4
				✓			Standard solutions are stored in standard storage conditions in accordance with the requirements specified in the device driver and calibration (catalogues) and within the specified	5

							temperature s.	
						✓	Securing the preservation of the devices after conducting scientific practices and in the specified manner based on the methods of operation and preservation.	6
		2016		✓		+32	Coding of standard solutions and considering the dates of validity specified therein.	7

**Gap measurement  
(Analysis of the results of the audit of the fourth axis)**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
√			√	√		√	Weights
1			1	2		3	Duplicate
0			3	8		18	Total
$29 / 7 = 4.14$ $4.14 / 6 * 100\% = 69\%$							Weighted arithmetic mean
$69\% * 10 = 6.9$							Percentage of matching extent

**Axis Number: Fifth Axis**  
**Axis Name: Test System**

**Conformity and score**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards	
				√			Evaluation of working methods in inspection and testing and their items	1
						√	Accurately determine the requirements for the conditions of conducting laboratory experiments	2
				√			Training workers on laboratory practices accurately	3

							, and the efficiency of understanding performance is tested, and the results are documented with performance	
				✓			Considering the accurate procedures in modeling, coding method and sampling methods down to the most accurate tests	4
						✓	Ensure the cleanliness of devices, equipment, glassware, solution concentrations, type, and field of	5

							use accurately	
				√			From time to time, specifications, and their impact on the quality of results are tested	6
						√	Fully secure test methods and alternative test methods	7
				√			Setting a determination within the scientific review reports to indicate the most appropriate methods in their selection, if this is simulated in a scientific way and using other laboratory	8

							methods in the accuracy of the results in the comparison
<b>Gap measurement (Analysis of the results of the audit of the fifth axis)</b>							
Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
				✓		✓	Weights
				5		3	Duplicate
				20		18	Total
$38/8 = 4.75$ $4.75/6 * 100\% = 79.1\%$							Weighted arithmetic mean
$79.1 * 13\% = 10.2$							Percentage of matching extent

**Axis Number: Sixth Axis**  
**Axis Name: Examination and Resources**

**Conformity and score**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards	
				√			The laboratory has a clear policy and procedures for the examination or calibration process that are specific to the responsibilities and powers in the management of the work and be subject to the evaluation of that procedure.	1
				√			In the case of non-conforming action, the corrective	2



							action adjustment is applied, the experiment is re-employed, the evaluation is carried out on the procedure and sources of non-conformity are identified.	
				√			The laboratory administration works to implement the preventive measure after each corrective action to prevent the occurrence of potential sources of non-conformity in the future, and that the preventive measure is	3

							available to laboratory workers to raise the level of students' performance.	
				✓			The laboratory uses methods and procedures for all tests / calibrations within the field of work (modeling, handling, transportation, storage, destruction).	4
						✓	Securing scientific procedures , especially training for affiliates and supervisors in the laboratory, and improving the efficiency of their	5

							performan ce to reduce multiple risks to students.	
				✓			Good laboratory facilities include the correct performan ce of tests and calibration s, including modeling, testing and calibration s at other locations of educationa l institutions .	6
						✓	The laboratory administrat ion monitors and controls environme ntal conditions such as sterilizatio n, dust, gases, radiation, humidity, heat,	7

							noise, and vibrations during laboratory practices by students in an important part of the standards of a good laboratory.
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**Gap measurement  
(Analysis of the results of the audit of the sixth axis)**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
				√		√	Weights
				5		2	Duplicate
				20		12	Total
$32 / 7 = 4.57$ $4.57 / 6 * 100\% = 76.1\%$							Weighted arithmetic mean
$76.1\% * 10 = 7.6$							Percentage of matching extent

**Axis Number: Seventh Axis**  
**Axis Name: Standard Working Methods**

**Conformity and score**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
				√			Selecting and examining laboratory work methods and reviewing them periodically according to the requirements of good laboratory accreditation 1
						√	Environmental and safety conditions can be secured and 2

							determine d through the implemen tation of laboratory practices by the laboratory administra tion for students.	
						✓	Laborator y practices (working methods) are transpare nt, easy to apply and understan dable to students in terms of work steps and achieving results and goals	3
						✓	Laborator y practices are an essential and practical part of the study program scheduled within the scientific side of students	4

						✓	It relies on standard solutions in calibrating the devices before starting the laboratory practices by students	5
						✓	Documenting negative observations and indicators through executive measures by students and developing corrective and preventive measures to prevent their occurrence	6

**Gap measurement**  
(Analysis of the results of the audit of the seventh axis)

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
				√		√	Weights
				2		4	Duplicate
				8		24	Total
$32 / 6 = 5.3$ $5.3 / 6 * 100\% = 88.8\%$							Weighted arithmetic mean
$88.8\% * 8 = 7.1$							Percentage of matching extent



Conformity and score

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
				✓			Develop an annual step to evaluate the performance and activity of laboratory staff
						✓	Applying instructions or instructions in the field of performance evaluation and achieving solidarity opportunities for students within the laboratory, and that performance is a statutory requirement binding on the strength of instructions
						✓	The laboratory administration considers the performance evaluation program to raise the efficiency of workers and supervisors within the good laboratory to provide the

							<p>opportunity to excel and take advantage of the opportunity of quality performance to satisfy the needs and desires of students as one of the objectives of the laboratory management in the application of the quality management system</p>
			2016	1037			<p>Evaluation and study of performance is done in a topical and complete manner to build a base of corrective actions in conjunction with the type and size of negative indicators and the size of obstacles so as not to represent deficiencies in the implementation of duties and activities</p>

							(laboratory practices)
				√			There is a specific and accurate calibration specialized in evaluating the performance of the laboratory activity as well as for its workers interested in future directions for the development of the performance evaluation system

**Gap measurement  
(Analysis of the results of the audit of the eighth axis)**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
				√		√	Weights
				3		2	Duplicate
				12		12	Total
$24/5 = 4.8$ $4.8 / 6 * 100\% = 80\%$							Weighted arithmetic mean

80% \* 7 = 5.6

Percentage of matching extent

Axis Number: Ninth Axis  
Theme Name: Results Report

Conformity and score

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
				✓			The laboratory has appropriate procedures and facilities to detect and avoid errors in the results of testing, examination, and calibration or through recording data, processes, and results.
				✓			The laboratory administration works to correct the uncertainty in the results.
				✓			The laboratory administration analyzes the data, controls

							the documents on it, and corrects the non-conforming or unacceptable results.
				✓			For laboratory management of the results in a transparent and clear manner free of confusion and achieving objectivity based on the instructions of the administration of the educational institution and the relevant authorities in the methods of testing, examination and calibration and including them in the results report.
				✓			Recording and documenting deviations in results or exceptions and identifying reasons in the method of

							examination, modeling, testing or calibration.
				✓			Design of the results report and certification, each type of examination and calibration should have or previously carried out
				✓			Compare the results obtained with other practice methods.
				✓			The laboratory administration conducts the regular evaluation of the factors indicative of the results.

**Gap measurement  
(Analysis of the results of the audit of the ninth axis)**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
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				√			Weights
				8			Duplicate
				32			Total
$32/8 = 4$ $4/6 * 100\% = 66.6\%$							Weighted arithmetic mean
$66.6\% * 14 = 9.3$							Percentage of matching extent

<b>Axis Number: Tenth Axis</b>							
<b>Theme Name: Archiving, storing, and recording reports</b>							
<b>Conformity and score</b>							
Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
				√			The laboratory management
							1

							implements the procedural method for the control of legal, technical and reference documents, evidence, and reports of all kinds.	
				✓			The laboratory management implements the procedural method for adjusting the seven specified registers according to the requirements of the GLP standards .	2
				✓			The laboratory management	3



							ent works on periodic review of documents, marking the task of them, and taking measures and solutions in development and improvement.	
							The laboratory administration adopts the use of colored seals according to technical contexts for issuance, draft, and canceled documents to distinguish documents and achieve	4

							quality performa nce in use.
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**Gap measurement  
(Analysis of the results of the tenth axis audit)**

Not applied and undocumented (zero degree)	Partially applied and undocumented (1 degree)	Partially applied and partially documented (2 degrees)	Partially applied and fully documented (3 marks)	Fully applied and undocumented (4 degrees)	Fully applied and partially documented (5 degrees)	Fully applied and fully documented (6 marks)	Standards
				√			Weights
				4			Duplicate
				16			Total
$16/4 = 4$ $4/6 * 100\% = 66.6\%$							Weighted arithmetic mean
$66.6\% * 6 = 4$							Percentage of matching extent

**Measuring the size of the gap for the laboratories of the Faculty of Pharmacy  
Through final evaluation according to the weights of the GLP standards**

<b>Achieved weight</b>	<b>Axle weight</b>	<b>Axis Title</b>	<b>Axis Number</b>
11%	11%	<b>Organization &amp; Staff / Laboratory</b>	<b>First</b>
%6.67	8%	<b>Quality Assurance Program</b>	<b>Second</b>
%12.5	13%	<b>utilities</b>	<b>Third</b>
%6.9	10%	<b>Devices / Standard Solutions / Chemical, biological or physical materials</b>	<b>Fourth</b>
%10.3	13%	<b>Testing System</b>	<b>V</b>
%7.6	10%	<b>Examination and sources</b>	<b>Sixth</b>
%7.11	8%	<b>Standard methods of work</b>	<b>Seventh</b>
%5.6	7%	<b>Performance Study</b>	<b>Eighth</b>
%9.3	14%	<b>Results Report</b>	<b>Ninth</b>
%4	6 %	<b>Archiving, storing, and recording reports</b>	<b>X</b>
<b>%80.9</b>	<b>100%</b>	<b>Total</b>	

**What is the definition of SWAT analysis application and what is the mechanism of its application in the self-assessment program?**

Swot Analysis is an analytical method to know the weaknesses and strengths of the organization and to know the opportunities and threats facing the organization, as it is the best systems for building business strategies (long-term plans) and business plans to reach the desired goals and the success of the institution.

**Strengths:**

The strengths of any organization are its sources and capabilities available, which can be used to find competitive advantages, They are those aspects that you can compete with the college in markets, around which they build their strategies

**Weaknesses:**

are internal factors that negatively affect the activity of the kidney, Meaning what circumstances and internal deficiency factors really exist Hinders the ability to exploit opportunities. The actual absence

The strengths are only weaknesses faced by the college

**Opportunities:**

External influencing factors that are in the interest of the college,

Meaning any external circumstances or influencing factors that have an impact Positively enabled or enabled events opportunity to develop and grow.

**Threats:**

Represent any external circumstances or factors that have affected or may affect

نقاط القوة	
نقاط القوة	كيفية المحافظة عليها وتعزيزها
○	○
○	○
○	○
○	○
○	○

نقاط الضعف	
نقاط الضعف	ألية الحد منها وتعديلها أو إزالتها
○	○
○	○
○	○
○	○
○	○

الفرص المتاحة	
الفرص	كيفية الاستفادة منها
○	○
○	○
○	○
○	○
○	○

المخاطر المحتملة	
المخاطر المحتملة	طرق السيطرة عليها
○	○
○	○
○	○
○	○
○	○

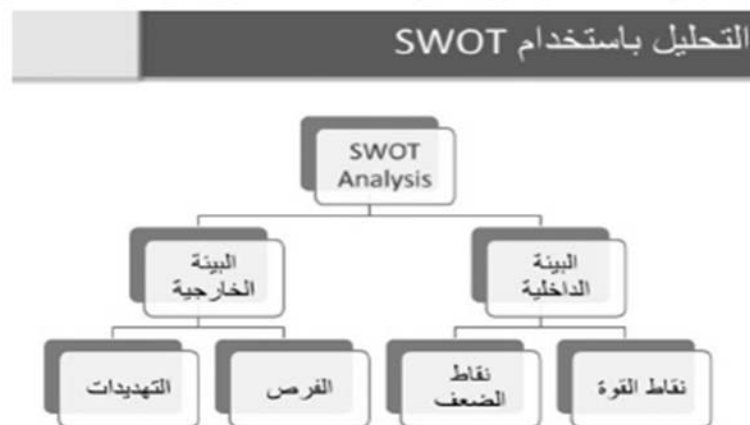
negatively, which are threatening factors or may cause loss and the harm of educational outcomes as any changes arise in The external environment may result in the destruction of hands that affect the kidney

And perform it directly

**On this basis, the SWAT analysis consists of two parts:**

**First:** includes analysis of the internal situation (strengths and weaknesses), which should be limited to what is really strengths and weaknesses and that the analysis moves away from expectations and possibilities.

**Second:** The analysis of the external environment includes opportunities and threats, which considers the actual situation where the existing threats and untapped opportunities on the one hand and analyzes changes in each of them on the other hand.



### **The importance of SWOT analysis:**

SWOT analysis is one of the most important tools for strategic analysis, and it is considered the first stage of preparing and designing plans within educational institutions, and it also helps people to make decisions affecting their lives, and it is also one of the easy and important ways, as it should not be ignored or not used in the work environment , and the importance of SWOT analysis is summarized according to the following points:

1- SWOT analysis helps to know all the elements of power that can be used to deal with threats and obstacles and provides the appropriate means to take advantage of the available opportunities and reduces the control resulting from the elements of weakness affecting the efficiency of the work of the educational institution.

2- SWOT analysis contributes to providing appropriate treatments for strategic situations characterized by complexity; by reducing the volume of information to contribute to the development of the decision-making process.

3 - SWOT analysis provides educational institutions with the ability to choose the best systems and review all data and information.

4. SWOT analysis supports educational institutions in reaching the best types of planning that help achieve goals, as SWOT analysis is keen to overcome barriers and obstacles affecting change processes, and to clarify the nature of the constraints that prevent them from continuing to change.

5. SWOT analysis provides information on all its elements, including threats, strengths, opportunities, and vulnerabilities, to apply useful analysis to the educational institution.

6. SWOT analysis provides access to new and up-to-date problem solutions, effective decision-making, and enhanced exchange of ideas and communication between individuals.

7- SWOT analysis provides appropriate recommendations for the preparation of economic feasibility studies for educational projects

### **SWOT Analysis Strategies: SWOT**

After completing the identification and study of all the elements of SWOT analysis, knowing the nature of the available threats and opportunities, and evaluating the weaknesses and strengths, a set of results appear that depend on various strategies, and the administration must choose the most appropriate strategy from them, as it corresponds to the positions of the educational institution towards its goals and competitors , and the following is information about the main strategies for SWOT analysis:

**Attacking strategy:**

It is the strategy based on the facility's possession of elements of strength and many opportunities, so the facility is keen to apply an offensive strategy to take advantage of all opportunities and enhance its strength

**Therapeutic strategy:**

It is the strategy that indicates that the facility has many opportunities, but it is affected by several weaknesses that make it unable to take advantage of these opportunities, so the treatment strategy contributes to providing appropriate treatment to correct the weakness that the facility suffers from.

**Defence strategy:**

It is the strategy that is used when an interaction appears between threats and elements of strength, where the organization is keen to invest its strength to defend itself against the threats it faces.

**Shrinkage strategy:**

It is the strategy that is used when the facility faces elements of weakness issued from within and a set of threats received from outside, and the contractionary strategy is keen to provide treatment for weakness and reduce as much as possible of threats.



**Strengths, weaknesses, threats, and opportunities considering SWAT analysis:**

**First:** Strengths that represent any intrinsic potential that already exists to help maximize the available opportunities and combat threats.

**Example:**

(a) What is the thing that we are distinguished and good at.

B- How is our competition?

C- What are our sources?

**Second:** Weaknesses Any internal circumstances and deficiencies that already exist hinder the ability of the organization, i.e., the organization, to exploit opportunities.

**Example:**

A- What is our policy?

B- What is the most annoying thing for the target groups and customers?

**Third: Opportunities and threats:** Opportunities are identified as having any circumstances or external circumstances with an impact on the demand for the organization's roaming.

**Example:**

A- What are the external changes or conditions that will help us implement the programs?

As for threats, they are defined as any external conditions or trends that affect the students on the field that characterizes a group, which in the absence of studied procedures may lead to the loss of the group's position: -

**Example:**

A/ What are the things that people do and we do not?

What future changes will affect our organization?

It is worth noting that SWAT's analysis focuses on the answer on the following bases:



- 1- What are your goals? Where are we and where do we want to be in the future?
- 2- What are the needs of the target groups?
- 3- How can we distinguish ourselves from other universities?
- 4- How can we stimulate our services?
5. How can we distinguish the conditions of the internal scale (strengths and weaknesses) from the conditions of the external scope (opportunities and threats). (

#### Application of the scale to extract the size of the gap:

Gravimetric data

- Number of axes = 10
- Number of criteria = 71
- Administrative requirements weights 45% =
- Technical requirements weights = 55%
- The value of one criterion out of 100% weight = 1.4

Requirement	Weight	Standard	t
Administrative	$8 \times 1,4 = 11,2 \approx 11,000$	First	1
Administrative	$6 \times 1,4 = 8,4 \approx 8,000$	Second	2
Administrative	$9 \times 1,4 = 12,6 \approx 13,000$	Third	3
technician	$7 \times 1,4 = 9,8 \approx 10,000$	Fourth	4
technician	$9 \times 1,4 = 12,6 \approx 13,000$	V	5
technician	$7 \times 1,4 = 9,8 \approx 10,000$	Sixth	6
technician	$6 \times 1,4 = 8,4 \approx 8,000$	Seventh	7
Administrative	$5 \times 1,4 = 7 \approx 7,000$	Eighth	8
technician	$10 \times 1,4 = 14 \approx 14,000$	Ninth	9
Administrative	$4 \times 1,4 = 5,6 \approx 6,000$	X	10

Table of heptathlon scale for determining the size of the gap with the standard		
Paragraph weight (grade)	Scale paragraph	t
6	Fully applied and fully documented	1
5	Fully applied and partially documented	2
4	Fully applied and undocumented	3
3	Partially applied and fully documented	4
2	Partially applied and partially documented	5
1	Partially applied and undocumented	6
0	Unapplied and undocumented	7

SWAT analysis on the ground of the ten axes:

**The first axis: organization and personality**

**A- Strengths:**

The laboratory administration sets the vision, mission, and objectives of the laboratories with common goals in accordance with the scientific specialization. Also, the development of the quality policy of the laboratory in line with the activity that the laboratory provides to students and in a way that ensures customer satisfaction to achieve the quality of the results, which are documented and announced. The pledge of the laboratory management to its responsibilities for achieving the assurance and quality of the educational service provided to the customer was documented and announced in front of the presidency of the department and the presidency of the Central Laboratories Management Department and the Laboratory Management Division in the department, where the pledge includes the ability of the laboratory administration to secure all the requirements of good laboratory

practice in the effectiveness of the laboratory and activate its scientific procedures in accordance with the requirements of GLP standards and in a documented and announced manner, the administrative structure has been determined according to the organizational structure of the laboratory.

#### **B- Weaknesses:**

The responsibilities within the laboratory are determined under the documented and announced administrative orders and in a way that ensures the documentation and statement of the tasks, duties, responsibilities, and powers given to each worker within the laboratory, starting from the laboratory supervisor, is not available, due to the absence of a job description that defines the tasks and powers. The best scientific practices selected by the laboratory administration are not conducted according to a careful study, but according to the academic vocabulary prepared and approved by the Central Deans Committee in the Ministry. The absence of a clear and accurate questionnaire to evaluate the work of the laboratories, its activities and the effectiveness of its scientific and educational activities provided to the customer. The lack of a clear and sufficient definition of the responsibilities of the working staff when changing or replacing it the absence of the laboratory supervisor may sometimes reflect negatively on the quality of service provided in the laboratory. The failure of the laboratory supervisor to meet periodically with the laboratory officials and staff leads to a weak role in fulfilling his pledge before the senior management and obtaining customer satisfaction. The set of foundations and principles is not determined by the laboratory management in quality control through laboratory tests, implementation, monitoring, recording, and archiving periodically.

#### **C. Threats:**

Sometimes the staff replacement process takes place partially or completely, which is reflected in the functioning of the teaching process as a whole and on meeting the requirements of the laboratory.

#### **D- Proposed Actions:**

Holding periodic meetings by the laboratory supervisor for the laboratory staff of workers, technical officials, and laboratory officials to introduce how to distribute tasks and powers, as well as develop plans to increase the effectiveness of the procedures adopted and implemented within the

laboratory. An evaluation form for the service provided by the laboratory management and staff must be developed to indicate the effectiveness of the implemented procedures and the extent to which the laboratory policy is applied optimally. The importance of developing an evaluation form for the role of the laboratory management lies in its fulfillment and implementation of its pledge before the senior management and the extent to which its policy matches the objectives set. Introducing the importance of the organizational structure and the distribution of tasks and powers through the job description of all employees in the laboratory system, through a meeting carried out by the laboratory administration in the event of the arrival of new workers to the laboratory staff explaining the mechanism of work and its foundations.

#### **E- Practices of the first axis on the ground:**

The process of quality control in educational laboratories according to procedural methods and the start of its implementation and in line with the principle of improvement and development is one of the practices that we carry out in the educational institution and that the management undertakes in accordance with the quality policy and in line with the vision, mission and objectives of the laboratory to achieve customer satisfaction on the one hand and to achieve the quality of results on the other hand .

#### **Second Theme: Quality Assurance Program:**

##### **A- Strengths:**

Training staff accurately on the application of quality control and assurance requirements in the laboratory and on all laboratory practices, including record control, standards, corrective actions and preventive, periodic and sudden maintenance plans. Also, most of the teachers have passed the GLP - ISO-9001 courses and all certificates and passing results are announced and documented within the educational laboratory. The laboratory management plays an active role in monitoring incorrect or inaccurate analytical results, developing corrective procedures for them and treating them optimally, in addition to its commitment to developing and implementing the management system and achieving continuous improvement.

##### **B- Weaknesses:**

The absence of the necessary awareness of the importance and role of periodic review and internal audit in the educational system / laboratory, as well as

the lack of sufficient knowledge of how and the foundations of developing and writing the audit report in conjunction with the absence of sufficient knowledge of the basics of writing and developing self-evaluation and the inability of the laboratory management to develop an actual plan for self-evaluation and analysis of the results of the effects. As well as the absence of a semi-annual plan for internal audit of the comprehensive program in the procedures and practices of the good laboratory and the lack of a sufficient number of internal auditors, which allows covering the activity of the laboratory and its audit activities. Failure to activate the laboratory audit procedure within semi-annual time periods to identify deviations in performance, develop procedures and solutions to address them, and develop and improve performance for laboratory management to ensure the integrity of the system when planning and implementing changes under the audit report can negatively affect the quality assurance program.

**C. Threats:**

The weakness of qualified and experienced cadres to carry out the tasks necessary for periodic review and self-evaluation and the lack of a sufficient number of internal auditors, which allows covering the laboratory's activity and audit activities in the absence of a plan developed for internal audit with a comprehensive program of laboratory procedures and practices.

**D- Opportunities:**

The need to start the procedures for developing an actual plan for self-evaluation and analysis of the results of the effects, as well as organizing the semi-annual plan for internal audit of the comprehensive program in the procedures and practices of the good laboratory, as well as conducting and documenting the audit report.

**E- Proposed Actions:**

Issuing administrative orders to quality representatives in educational laboratories (in each laboratory) to have the necessary qualification with documentation of the results that have been learned to compare them with the laboratory work of students. Opening courses and holding workshops to raise awareness of how to write an audit report and other workshops to train qualified cadres as internal auditors to disseminate quality concepts in accordance with the international standard. 9001

## **F- The practices of the second axis on the ground:**

The Laboratory Management Division in the Department of Pharmacy works to activate the role of laboratory management and technical officer in each laboratory to ensure commitment to the development and application of the management system and achieve continuous improvement.

### **Third Theme: Facilities**

#### **A- Strengths:**

Individual protection supplies were provided to students in the laboratory and trained to use them, as well as life protection organizations were provided with good ventilation, lighting, ground grounding, fire extinguishing system, alarm sensors and self-extinguishing according to the characteristics of the laboratory and within its programs and the degree of danger. The Laboratory Management Division, in cooperation with the laboratory administration, has also developed and equipped indicative and warning signs for laboratory safety inside and outside the laboratory to raise awareness about risks in all laboratories of the Pharmacy Department. A first aid fund and guidance in emergency cases were also provided when dealing with chemical, physical, biological, mechanical or electrical risks, the civil design of the laboratories of the Department of Pharmacy was modified to ensure the open system and not the closed system in accordance with the national standards announced in the Ministry of Higher Education and Scientific Research. In line with the number of students and experiments, the department's laboratories are equipped with closed-type containers and there is a program to remove their contents.

#### **B- Weaknesses:**

Laboratory staff and supervisors should be trained in the use of fire extinguishers according to the characteristics and scope of their use. The lack of documentation of a plan for the disposal of chemical waste after each laboratory practice, the absence of a responsible for the implementation of this plan by the Professional Safety Committee in the department, as well as the absence of a record to document the procedures followed to train students and workers on safety procedures and how to apply them periodically.

#### **C- Proposed Actions:**

A plan should be developed to establish training courses for personnel and supervisors on the use of fire extinguishers according to the characteristics and scope of their use.

The Laboratory Management Division in the department, within its quarterly plan, intends to hold other courses to train students and affiliates on the optimal methods in civil defense in cooperation with the Directorate of Civil Defense - Karrada Section, where it obtained the approval of the head of the department to carry out an evacuation practice in the event of fires or chemical accidents, in cooperation with the Directorate of Civil Defense - Karrada Section.

#### **E- Practices of the third axis on the ground:**

The Occupational Safety Committee was formed in the department, which carries out its work in conjunction with the Civil Defense Committee to maintain the security and safety of students and affiliates in the department, where a central committee for civil defense was formed in the department and sub-teams on each floor consisting of one of the laboratory officials affiliated to this floor with the responsible for the security and safety of the floor (from the college staff) and technicians on the floor and the Civil Defense Directorate was informed –Al-Karrada interrupted that, and administrative orders were issued by the Dean of the Faculty, so the maintenance program of ventilation and lighting systems is applied according to the degree of laboratory risks, and there is a timetable for maintenance, prevention and treatment, which is documented. The department's response was quick in applying the requirements of the good laboratory, as the old laboratories were modified according to the requirements of the good laboratory approved by the ministry, where the management room, a model reception room or a laboratory analysis room were established. The teams of the Directorate of Civil Defense - Karrada Section, visit the Department of Pharmacy periodically to determine the progress of safety and security within the department and its various rooms and laboratories An emergency exit has been established on each floor and an external ladder linking all floors of the building and under the direct supervision of the Directorate of Defense Civil - Karrada Boycott and Lieutenant Colonel Bassam Abbas Falhi Cutter A civil defense course and another course for occupational safety were held for a group of the department's employees, and they were trained and received



certificates of appreciation and raised their names to the Deanship of the College - Department of Quality Assurance and Accreditation.

#### **Fourth Theme: Devices / Standard Solutions / Chemical, biological or Physical Materials**

##### **A- Strengths:**

All devices and equipment in the department's laboratories have been coded and all the required data from (manufacturer, year of manufacture, company name ..... etc. (This was documented as well as uploaded on the website of the Ministry of Higher Education and Scientific Research, and a timetable for calibration of laboratory devices and equipment and the calibration plan was developed in cooperation with the Technical Division and the Maintenance Committee in the department, which is documented. The data on devices and equipment is subject to a central program to build a database at the level of laboratories in the department and college, which is documented by the Department of Laboratory Management in the Deanship, and chemical and biological laboratory materials are stored according to the global material storage system, and chemical and biological materials are coded according to the American (NEPA) system for fire and accident protection, which is documented, and standard solutions are kept in standard storage conditions according to the requirements specified in the device operation and calibration program. Catalogs (and within the specified temperatures. The technicians of each laboratory, in cooperation with the technical officer, ensure the preservation of the equipment in terms of cleanliness, readiness and standards after conducting scientific practices and in the specified manner according to the methods of operation and preservation. Standard solutions were coded, and expiration dates were determined.

##### **B- Weaknesses:**

There is no time plan for calibrating laboratory devices and equipment, and the transfer of laboratory devices or equipment by some laboratory officials without informing the Quality Assurance Committee and the equipment coding officer to transfer their liability when the laboratory is equipped with new devices or the transfer of a section of the devices stored in the store to laboratory work, there is a reluctance to inform the relevant authorities.

##### **C. Opportunities:**

Develop a central program to build the database at the level of laboratories and ensure that all devices are provided with operation and maintenance instructions.

#### **D. Threats:**

The transfer of some technicians from one laboratory to another after the end of each semester would affect the extent to which each worker absorbs his role in the laboratory, as the absence of the necessary plans to destroy chemicals and chemical and biological waste would contribute to the delay in the work of the laboratory system.

#### **E- Proposed Actions:**

During the conversion of the laboratory from one room to another, the process of losing some of the work instructions and steps to operate the device, so work is underway to equip them optimally by the technical officer of the relevant laboratories that the technicians within the laboratory as well as the technical officer are not transferred until after a full year period so that we, as a quality and accreditation committee, can organize, facilitate and train workers and staff in a way that ensures the quality and effectiveness of performance.

#### **F- Practices of the fourth axis on the ground:**

In application of the principle of quality management and in accordance with the work instructions, all laboratories of the Department of Pharmacy have been coded their own devices and equipment, and this has been submitted to the official website in the ministry, and when withdrawing or purchasing a device to enter it into work, the inventory card is made and given its serial code, which distinguished it at the level of the laboratory on the one hand and the department on the other hand, as well as providing all laboratories with an occupational safety manual, which was developed by the Central Laboratory Management Department in cooperation with the Laboratory Management Division. In the department, where it displays the series of procedures and instructions necessary in each laboratory, and all laboratories are provided with the MSDS system for chemicals.

### **Fifth Theme: Laboratory System**

#### **A- Strengths:**

Supervising the implementation of laboratory procedures directly, as well as evaluating work reports and conducting experiments and tests of both types of oral and written, all of which is applied and documented, as the requirements for the conditions of conducting laboratory experiments are determined weekly accurately by relying on scientific sources approved by the Central Deans Committee in the ministry, as well as references and sober scientific sources, as well as presentation, preparation and informing students of these conditions before starting laboratory work to obtain the desired results, which is documented within the working conditions of the experiment. The presence of environmental measurement devices in the department to measure, record and document environmental readings such as temperature, humidity, and intensity of illumination. Employees are trained on laboratory practices accurately by the laboratory administrator and performance efficiency is tested. Understanding and documenting the results of performance through a special questionnaire form that is distributed to workers exclusively by the department head to laboratory officials to evaluate performance, efficiency, and ability to continue, improve and develop. Securing the test methods, both oral and written, fully by the laboratory official, and the place and number of tests are within the teacher's work plan within the laboratory, which is documented, the validity of standard solutions and solutions prepared within specific concentrations for conducting experiments is verified, as well as the procedures for scanning samples and culture according to the controls specified in laboratory examination methods, which is documented within the conditions, tools and concentrations necessary for the success of the experiment.

**B- Weaknesses:**

The technical officer makes sure of the cleanliness of the devices, equipment, glassware, solution concentrations, type and field of use accurately, but this is not documented, and the laboratory official and the technical officer from time to time check the specifications and purity to determine the extent of their impact on the quality of the results through standard methods and laboratory procedures, but this is not documented. There is no record to document and record the examination conducted for laboratory materials to determine their purity and quality of origin, and there is no record to document the availability, cleanliness, damage, malfunction or breakage of devices, equipment, and glassware after each experiment.

### **C. Opportunities:**

Relying on the automation of laboratory results, adopting modern technology and alternative experiments, and creating a special register for alternative trials.

### **D. Threats:**

Equipping laboratories with glassware from a variety of various sources or origins would expose laboratory work to failure, which threatens the quality of the results and standardization as required, and the lack of mastery of the staff working in the laboratory on the mechanism of operating devices and equipment as well,

### **E- Proposed Actions:**

Preparing a special record in which periodic observations are recorded (after each experiment) including the cleanliness of devices, equipment, glassware, concentrations of chemical solutions, their type, and the field of their use accurately. Holding simple workshops or lectures on how to operate devices and equipment for technicians and laboratory workers.

### **F- The practices of the fifth axis on the ground:**

Fixing the expiration date on standard solutions as well as solutions that are periodically embedded and determining preparation dates would raise the accuracy of the results and the need to develop a special record to record and document all hygiene and maintenance procedures for equipment, glassware and laboratory devices according to a program and a time plan to ensure the quality and accuracy of performance.

### **Sixth Theme: Examination and Resources**

#### **A- Strengths:**

Each laboratory in the department has a clear policy, which is specific to the responsibilities and powers in the management of work and to be subject to the evaluation of that procedure, as well as scientific procedures, especially training for affiliates and supervisors in the laboratory and improving the efficiency of their performance to reduce the various risks to students.

#### **B- Weaknesses:**

The non-conforming procedure is not documented and recorded to adjust the corrective action, re-work the experiment again, and carry out the evaluation on the procedure, so sources are not identified in the reasons for non-conformity. The laboratory administration does not implement the preventive measure after each corrective action to prevent the occurrence of potential sources of non-conformity in the future, and that the preventive measure is available to laboratory workers to raise the level of student performance.

**C. Opportunities:**

Cooperation and investment of the laboratories of the Department of Pathological Analysis and educational laboratories in the Medical City to model, equip and calibrate models and samples.

**D. Threats:**

Lack of courses for workers in the field of modeling and calibration.

**E- Proposed Actions:**

The need to create a special record of alternative trials in each laboratory to ensure access to the quality of our educational outputs and to obtain customer satisfaction and another record to train employees, raise the level of efficiency and consolidate educational outputs Provide a special record of corrective actions in case of non-conforming actions.

**F- Practices of the sixth axis on the ground:**

The department has been provided with environmental measurement devices to ensure periodic and optimal measurement of various environmental conditions in educational laboratories Work to open specialized courses for laboratory workers to develop and improve the efficiency and ability of the staff working in the educational laboratory.

**Seventh Theme: Standard Working Methods:**

**A- Strengths:**

Environmental and safety conditions are secured, identified and documented during the implementation of laboratory practices by the laboratory administration for students, where laboratory practices are considered an essential and practical part of the course program within the scientific side of

students. Standard Solutions - blanks are also relied upon in calibrating the devices before starting laboratory practices by students.

### **B. Weaknesses**

The selection, examination and review of laboratory methods is not carried out periodically according to the requirements of good laboratory accreditation. The department's laboratories also lack to record and document negative observations and indicators during the executive procedures by students and to develop corrective and preventive measures to prevent their occurrence.

### **C. Opportunities:**

Periodic review is an essential way to select and examine alternative methods of work and the periodic review report puts laboratory practices on track to ensure and consolidate the quality of teaching and learning.

### **D. Threats:**

Transferring some technicians from one laboratory to another after the end of each semester would affect the extent to which each worker absorbs his role in the laboratory.

### **E- Proposed Actions:**

Opening a record of corrective and preventive measures and documenting negative indicators during the executive procedures. The transparency and clarity of the experiment and the students' opinion on the importance of conducting it and the objectives achieved from this must be included in light of the specialization of the laboratory and the extent of students' comprehension according to a special questionnaire or include this with the results report.

### **F- The practices of the seventh axis on the ground**

The staff working in the laboratory has been strengthened from technicians and teachers to raise the efficiency of performance with the development of plans to deal with procedural methods in both administrative and technical aspects to lead to best practices in the good laboratory.

## **Eighth Theme: Performance Study**

### **A- Strengths:**

The department has an annual plan to evaluate the performance of laboratory workers and the activity they carry out in a transparent and objective manner. This is ensured by a set of laws or instructions in the field of evaluating the performance and achieving equal opportunities for students within the laboratory and that performance is a statutory requirement binding on the force of instructions. The laboratory administration also looks at the performance evaluation program as a means to raise the efficiency of workers and supervisors within the good laboratory to provide the opportunity to excel and benefit from the opportunity of quality performance to satisfy the needs and desires of students as one of the objectives of the laboratory management in the application of the quality management system. Performance evaluation and study is done objectively and completely to build a base of corrective actions in conjunction with the type and size of negative indicators and obstacles so as not to represent deficiencies in the implementation of duties and activities (laboratory practices).

**B- Weaknesses:**

There are no specific and accurate standards specialized in evaluating the performance of the laboratory activity as well as its employees and concerned with the future directions for the development of the performance evaluation system. Lack of statistical analysis of the results and data received.

**C- Opportunities:**

Work to submit an extensive study on the development and modernization of educational curricula to the Scientific Supervision and Evaluation Authority in the Ministry in line with the development in the field of knowledge, technology, and science

**D. Threats:**

It is not easy to prepare an efficient and proficient cadre for his work capable of managing risks optimally and dealing with the negatives in the educational laboratory in a typical way, so the development of questionnaires to evaluate performance and efficiency without considering Chinese standards would expose the educational system to failure to reach the desired goal.

**E- Proposed Actions:**

Search for accurate and approved international standards in evaluating the performance of laboratory activity as well as workers in it to improve and develop the system of efficiency and performance evaluation to reach the optimal model in evaluation Search for analogues of the educational laboratory in peer universities to activate the role of workshops and specialized courses to support the activity of workers and increase their efficiency As well as working to find new laboratory practices and activities out of the ordinary and in a manner that does not violate the content and scientific competence of each laboratory that would enhance the role of the laboratory within the organizational structure of the laboratory For the department, the process of analyzing the data for the evaluation results of the staff working in the laboratory in an objective and transparent manner will help to reach the optimal and most appropriate staff for each laboratory.

**F- The practices of the fifth axis on the ground:**

The department annually selects the optimal educational laboratory and honors its employees and staff to sow the spirit of competition and development and to create opportunities for sustainable development based on the principles of quality management and accreditation.

**Ninth Theme: Results Report:**

**Strengths:**

The laboratory has appropriate procedures and facilities to control and avoid errors in the test results (such as the work instruction manual and the scientific experiments guide) as well as the results are matched with the standard results in force, where the laboratory administration works on designing results reports that the reports and certificates are designed for each type and test implemented. The results obtained are compared with other practice methods. The laboratory administration conducts the systematic evaluation of the factors indicative of the results.

**B- Weaknesses:**

The need to document and record negative practices and analyze them to identify errors and avoid it by finding a record of alternative experiments or choosing alternatives from cocoa materials that can be replaced and used



without prejudice to the conduct of scientific experiments to reach the desired results. Also, the electronic automation of data will contribute effectively and substantially to finding the easiest and clearest ways to apply practices and procedures.

#### **C. Threats:**

Students are not motivated to identify the reasons for the emergence of negative results or urged to search for how to improve the result of the experiment to reach the ideal results.

#### **D- Proposed Actions:**

Preparing the record of alternative experiments and alternative materials to conduct the experiment Start clarifying and using the electronic window to open wide horizons between the student and the teacher to reach the optimal results and to achieve the principles of teaching and learning and work on developing an authentication form for the final report of the results and the review report of the scientific content of the experiments by the laboratory supervisor and ensuring the provision of a record to document deviations in the results and explain their causes and how to correct them so that this does not affect the mechanism and practices of the laboratory.

#### **E- Practices of the ninth axis on the ground:**

The process of presenting the results to students is carried out objectively and transparently to avoid falling into error during the process of the experiment Analyzing the results to determine the process of repeating negative results and their causes Working to rely on the standard results adopted in the universities of the Nazir.

#### **Tenth Theme: Archiving, storing, and recording reports**

##### **A- Strengths:**

The laboratory administration implements the procedural method for controlling legal, technical and reference documents, manuals, and reports of all kinds. The laboratory administration implements the procedural method for controlling the seven records specified in accordance with the requirements of the (GLP) standards, and the electronic archiving of all forms and data has been started.

**B- Weaknesses:**

Lack of periodic review of documents and marking of the task and taking measures and solutions for development and improvement by the laboratory management.

**C. Threats:**

Providing qualified staff to carry out periodic review in accordance with the approved standards.

**D/Opportunities:**

The presence of the consultant had a key role in reaching the level of laboratory activities capable of evaluation, standardization, and follow-up to correct the course and find alternative steps and solutions that would evaluate the process in the educational system, such as the educational laboratory.

**E- Proposed Actions:**

Finding the periodic audit record and activating the role of the laboratory supervisor in follow-up, monitoring, and measurement, and working to open training courses in the foundations and principles of writing and developing a periodic audit report in the institution.

**F- The practices of the fifth axis on the ground**

Work and implementation of administrative and technical procedural methods were carried out in all educational laboratories, as well as those related to good laboratory practices, and colored seals were used according to technical contexts for issuance documents, drafts and canceled or modified documents to distinguish documents and achieve quality performance in use.

