

**Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department**



**Academic Program
and Syllabus
Description Guide
Clinical Laboratory
Science**

2024

Academic Program Description Form

University Name: University of Kirkuk
Faculty/Institute: College of Pharmacy
Scientific Department: Pharmaceuticals
File Completion Date: 21/3/2024

Signature:

Head of Department:

Prof. Mohammed Talaat Abbas

Date: 4/4/2024

Signature:

Scientific Associate:

Asst. Prof. Muhsin Hamed Edham

Date:4/4/2024

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Sarah Mohammed Najeeb

Date: 4/4/2024

Signature:

Approval of the Dean

1. Program Vision

The vision includes the teachings and study of Clinical laboratory Science and the researches to enrich the students with information and scientific knowledge to raise the students' scientific academic level

2. Program Mission

To prepared competent pharmacists by providing the students with basic knowledge and sciences throughout teaching different laboratory sciences and its relation to clinical pharmacy science. This program also conduct scientific researches whether students' graduation researches or scientific researches in different scientific fields within the scientific specialties of the lecturers in line with the scientific development around the globe.

3. Program Objectives

- Maintain the level of the student by developing headlines in a logical, step-by-step ways.
- Aid and guide the student to comprehend the subject and its development.
- Enable the student to develop clinical skills and knowledge by laboratory work using different and various chemical devices and techniques.
- Identify gaps in our knowledge to ensure graduating new generation of scientists.
- Explore the history of chosen selected discoveries, when it's useful.
- The students that have become doctors, share the meaning of all laboratory evaluation related information, and how to find explanation for the purpose of writing clinical reports in many branches such as blood diseases, respiratory diseases, clinical biochemistry, immunity, bacteria, fungus, viruses and parasites to help diagnose patients and make the correct medical decisions.

4. Program Accreditation

Quality Assurance

5. Other external influences

Students have lectures, seminars and practical training courses in hospitals, labs, pharmacies.

6. Program Structure

Program Structure	Number of syllabuses	Credit hours	Percentage	Reviews*
Institution Requirements	3	6	10.7%	Basic
College Requirements				
Department Requirements	18	50	89.3%	Basic
Summer Training				
Other				

* This can include notes whether the syllabus is basic or optional.

7. Program Description

Year/Level	Syllabus Code	Syllabus Name	Credit Hours	
			theoretical	practical
Frist Year		Biology	2	2
		Histology	2	2
		Anatomy	1	2
		Medical Physics	2	2
		Viral Statistics and Mathematics	3	-
		Democracy and Human Rights	2	-
		Computer Science	-	2
		English Language	2	-
		Arabic Language	2	-

Second Year		Microbiology 1	3	2
		Microbiology 2	3	2
		Democracy	2	-
		Computer Science		2
		Al-Baath Party Crimes	2	
Third Year		Biochemistry 1	3	2
		Biochemistry 2	3	2
		Pathology Physiology	3	2
Fourth Year		General Health and Pharmacy Practice	2	*
Fifth Year		Clinical Chemistry	3	2
		Lab Training	-	4

8. Expected learning outcomes of the program

Knowledge

- 1) Knowledge Objectives
 - a. Clinical chemistry, or medical lab, is the center of multi-specialized health care center. It can provide knowledge based on valuable evidence that can be applied on clinical cases to improve results and experiments of the patients.
 - b. Comprehend syllabus principals and basics.
 - c. Reveal several biomolecules using different biochemistry methods.
 - d. Knowledge of clinical analysis fields.
 - e. Provide the student with full efforts, skills and knowledge to diagnose diseases by lab tests.
 - f. Identify the basics of Computer Science.
 - g. Provide the student with full efforts, skills and knowledge to use smart and regular board pen and other demonstrative means.
 - h. Comprehend other subjects related to pharmacy such as bacterial, viral and parasite diseases as well as identifying the immune

The student is provided with required knowledge, skills and efforts to work on diagnosing diseases through lab tests, hospitals, college of pharmacy or special care.

<p>concepts such as comprehending the mechanism of immune system and the most diseases resulting from hyperactivity or weak immune response.</p> <ul style="list-style-type: none"> i. Knowledge of statistics and mathematical key concepts as well as other subjects related to pharmacy. j. Knowledge of medical physics basic concept and other subjects related to pharmacy. <p>2) Objectives of skills related to the program</p> <ul style="list-style-type: none"> a. Comprehend the renewable medicine future and the concept of living cells cure that have the ability to fix the damaged paths. Renew the immune system and restore the health of many patients of chronic diseases. b. Make posters of different scientific subjects. c. Diagnose diseases by detecting their causes. d. The use of appropriate antibiotics in treatments according to the lab results report. 	
Skills	
<p>Transferred General and Qualifying Skills (other skills related to the ability of self-development)</p> <ul style="list-style-type: none"> 1. Gain skills of listening to patient's complaints to learn about the type of disease and engage in giving the appropriate treatment. 2. Obtain available skills which could help fix treatment problems and develop new treatment ideas. 3. Decision making and solve problems related to the correct drug to the patient. 	<p>Build-up new graduate to become an able pharmacist for scientific mediation.</p>
Ethics	
<ul style="list-style-type: none"> 1) The student must have full knowledge, through his course study, about methods of health care to the community which he belongs to. 	<p>Student must push forward to provide active and safe drug for the community. He also has to have moral ethics to correctly handle patients.</p>

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| <ol style="list-style-type: none">2) The student must seek the medical and pharmaceutical phenomena in his community.3) The student must accept the idea of prove or disprove of some basic principals in pharmaceutical and medical sciences. | |
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9. Teaching and Learning Strategies

Teaching and learning methods of knowledge and skill objectives.

1. Summer training in private pharmacies.
2. Mandatory training in hospitals clinically, hospital training and lab training.
3. White board and presentation slides.
4. Educational labs.
5. Practical and scientific research.
6. Book-reading encouragement.
7. Daily report-writing.

Ethics teaching and learning methods by presenting theoretical, practical and applicable lectures and discussions and assign small groups to present courses and field visits to summer training locations.

Skills teaching and learning methods: the students provide proof of organized skills and communication skills by using critical thinking in problem-solving methods.

10. Evaluation methods

Evaluation methods for skills and knowledge objectives:

1. In-class oral questions.
2. Pop quizzes.
3. Home-work reports.
4. Practical exams.
5. Mid-term exams.

6. Oral exams after lab experiments
7. Final exams.
8. Summer training field visits.
9. Sudden questions during discussions.

Accredited evaluation methods for ethics

1. Oral discussion.
2. Paper exams.
3. Brief reports.
4. Seminars.
5. Daily exams.
6. Practical exams.

Skills evaluation methods

Review of personal thinking skills, present results and the use of new methods in education.

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Prof. Mohammed Talaat Abbas	veterinary	Biochemistry			/	
Asst. Prof. Muhsin Hamed Edham	Biology	Microbiology			/	
Asst. Prof. Taha Darweesh Hanawi	Computer Science	Computer Science			/	
Asst. Lect. Hanadi Hussain Sharqi	Physics	Nuclear Physics			/	

Asst. Lect. Jihan Jalel Mohammed	Chemistry	Biochemistry			/	
Asst. Lect. Awsaf Ibrahim Mustafa	Biology	Microbiology			/	
Asst. Lect. Nagham Daham Ibrahim	Arabic Language	Modern Arabic Literature and its Criticism			/	
Asst. Lect. Jinar Ghalib Bakhtiar	Biology	Microbiology			/	
Asst. Lect. Goldin Adnan Muhammed	Pharmacy	Clinical Biochemistry			/	
Asst. Lect. Saif Hameed Shihab	English Language	Philology			/	
Asst. Lect. Dunia Mahmood Abdulrahman	Biology	Microbiology and Viruses			/	
Asst. Lect. Manal Abdullah Rasheed	Islamic Science	Principles of Islamic jurisprudence			/	
Asst. Lect. Afnan Yildrem	Veterinary	Physiology			/	
Asst. Prof. Sami Ibrahim	Biology	Anatomy				/
Asst. Prof. Ahmed Hamed Salih	Biology	Histology				/
Dr. Marghoob	Pharmacy	Pharmacy				/

Professional Development

Mentoring new faculty members

Benefit from universal universities in self-development, knowledge enrichment, scientific discussions and activities.

Professional development of faculty members

1. Use of both merged and in class education.
2. Private pharmacies summer training.
3. Governmental hospitals practical training.

Prepare, follow-up, and discuss graduation project in a way that stimulates the university thesis to empower the search skills of the student.

12. Acceptance Criterion

The student is accepted within the central acceptance of the Ministry of Higher Education and Scientific Research.

13. The most important sources of information about the program

College of Pharmacy Committee of Deans.

14. Program Development Plan

Specific units within the program related to personal development plans. The student will take the opportunity and encouragement to engage in profession-related qualification.

