

Academic Program Description Form



Faculty/Institute: Baghdad College of Medical Sciences

Scientific Department: Pharmacy Department

Academic or Professional Program Name: Bachelor of Pharmacy

Final Certificate Name: Bachelor.

Academic System: Semester

Description Preparation Date: January 2025

File Completion Date: February -2025

Signature:

Head of Department Name:

Assist. Prof. Mohammed Abdulmutallab Bari

Date: 2/2/2025

Signature:

Scientific Associate Name:

Lecturer. Dr. Zainab Jumaa Qasim

Date: 2/2/2025

The file is checked by: Lecturer Dr. Emad Munib Malik

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date: 2/2/2025

Signature:

Approval of the Dean

Prof. Ahmed Abbas Hussein

1. Program Vision

The Pharmacy Department is one of the departments of Baghdad College of Medical Sciences, which is an educational and research institution that serves the community with a competitive capability in various pharmaceutical sciences. It seeks to occupy a prestigious position at both the local and regional levels. The Pharmacy Department works on excelling in educational, experimental, and multi-professional learning, basic and applied research, and services, and aims to enhance all aspects of patient-centered care.

2. Program Mission

The department is committed to graduating competent pharmacists capable of scientific competition according to the highest possible medical and professional standards. The mission of the pharmacy department is summarized as follows:

- Providing graduating pharmacists with balanced and studied knowledge and teaching them to bear ethical responsibility in healthcare professions.
- Adopting academic and professional programs capable of preparing pharmacists who can pursue a successful and professional career path.
- Providing information and technical skills to meet various pharmaceutical needs in both the public and private sectors.
- Becoming a research-based educational center focused on collaboration between different pharmaceutical sciences and the pharmaceutical industry.
- Committing to the application of quality standards, evaluating them, and following up on their implementation in all department facilities.

3. Program Objectives

- Providing a dynamic, complementary, and advanced curriculum focused on finding solutions to real-world problems
- Preparing students for a profession and an evolving environment that meets the needs of the national workforce
- Enhancing the scope of our educational programs to include preparing undergraduate students for pharmaceutical sciences and sciences.

4. Program Accreditation

National accreditation/National Council for Accreditation of Pharmacy Colleges is in progress

5. Other external influences

Practice sites- Office research - extracurricular activities - volunteer activities - other

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews
Institution Requirements	/	/	/	/
College Requirements	/	/		Basic
Department Requirements	61	179	/	/
Summer Training		Satisfied		
Other	/	/	/	/

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
Year 1, 1 st semester	101 ACIHb	Human Biology	2	2
	102 Phpp	Principles of pharmacy practice	2	----
	103 ChPAc	Analytical chemistry	3	2
	104 ACIMt	Medical terminology	1	----
	105 PhMb	Mathematics and biostatistics	3	----
Year 1, 2 nd semester	106 ACIHb	Human anatomy	1	2
	107 PhPhc	Pharmaceutical calculations	2	2
	108 PhMp	Medical physics	2	2
	109 ChPOc1	Organic Chemistry I	3	2
	110 ACIHi	Histology	2	2
	111 PhHr	Human Rights + Democracy	2	----
	112 PhCs	Computers sciences	1	2
Year 2, 1 st semester	213ChPOc2	Organic chemistry II	3	2
	214 ACIMm1	Medical Microbiology I	3	2
	215 PhPp1	Physical pharmacy I	3	2
	216 ACIph1	Physiology I	3	2
	217 PhCs	Computer Sciences III	----	2
	218 PhCA	Crimes of Baath system	2	----
Year 2, 2 nd semester	219 ChPOc3	Organic chemistry III	2	2
	220 ACIMm2	Medical Microbiology II.	3	2
	221 PhPp2	Physical pharmacy II	3	2
	222 ACIPh2	Physiology II	3	2
	223 ChPP1	Pharmacognosy I	3	2
	224 PhCs	Computer Sciences IV	----	2
	225 PhAL	Arabic language	2	-----
	326 ChPIP	inorganic pharmaceutical chemistry I	2	2

Year 3, 1st semester	327 ChPP2	pharmacognosy II	2	2
	328 PhPT1	Pharmaceutical technology I	3	2
	329 ACIBc1	Biochemistry I	3	2
	330 ACIPa	Pathophysiology	3	2
Year 3, 2nd semester	331 ChPOp1	Organic Pharmaceutical Chemistry I	3	2
	332 ACIph1	Pharmacology I	3	----
	333 PhPT2	Pharmaceutical technology II	3	2
	334 ACIBc2	biochemistry II	3	2
	335 ChPP3	Pharmacognosy III	2	2
	336 ACIPE	Pharmacy ethics	1	----
Year 4, 1st semester	437 ACIPh2	Pharmacology II	3	2
	438 ChPOp2	Organic Pharmaceutical Chemistry II	3	2
	439 ACICp1	Clinical Pharmacy I	2	2
	440 PhBp	Biopharmaceutics	2	2
	441 ACIPuh	Public health	2	----
Year 4, 2nd semester	442 ACIPh3	pharmacology III	2	----
	443 ChPOp3	Organic Pharmaceutical Chemistry III	3	2
	444 ACICp2	Clinical pharmacy II	2	2
	445 ACIGt	General toxicology	2	2
	446 PhIp1	Industrial Pharmacy I	3	2
	447 ACICs	Communication skills	2	----
Year 5, 1st semester	548 ChPOp4	Organic Pharmaceutical Chemistry IV	2	----
	549 PhIp2	Industrial pharmacy II	3	2
	550 ACIAt1	Applied therapeutics I	3	----
	551 ACICc	Clinical chemistry	3	2
	552 ACIHt	Hospital training	----	4
	553 ACICt	Clinical toxicology	2	2
	554 GP	Graduation project	1	-----
Year 5, 2nd semester	555 ACIPco	Pharmacoeconomics	2	----
	556 ACIAt2	Applied therapeutics II	2	----
	557 PhTdm	Therapeutic drug monitoring	2	2
	558 ChPApa	Advanced pharmaceutical analysis	3	2
	559 ACICl	Clinical laboratories training	----	4
	560 ACIDfd	Dosage form design	2	----
	561 Phpb	Pharmaceutical biotechnology	1	----

8. Expected learning outcomes of the program	
Knowledge	
1. Recognize the normal functions of the body and changes in these functions associated with disease conditions	To identify the human body and its organs and their functions in cases of health and disease from the anatomical and functional biochemistry and clinical aspects
2. Identify the drug as a chemical compound and identify its chemical and physical properties	Determine the effect of the drug's properties on its effectiveness and side effects

3. Identify the types of pharmaceutical dosage forms	How to determine the appropriate dosage form and methods of preparation and evaluate it in terms of effectiveness, therapeutic effect, side effects, stability and calculation of correct doses
4. Identify the different treatment options	Choose the right treatment for the pathological condition and the desired therapeutic effect
5. Understand the concepts of human rights and citizenship	The pharmacist is aware of his/her duties and rights as a good citizen of the society
6. Learn about the principles of medical statistics and medical physics	Knowledge of the basis for evaluating the results of clinical studies and economic studies of pharmaceuticals
7. Identify the mechanism of action of drugs, its side effects and their toxicity	Identification of drug interactions
Skills	
1. Working in laboratory environment	The student is able to safely handle laboratory equipment and reagents taking into account laboratory safety standards
2. Self-learning	The student is able to search for needed information and apply it
3. Providing the highest level of health care	The pharmacist is able to provide scientific and pharmaceutical consultations to the individuals in the health institutions and the community and provide treatment follow up
4. Provide safe and effective treatment	The pharmacist is able to diagnose medication errors in terms of the suitability of treatment for the pathological condition and the patient and the absence of interactions with other medications and with the general health condition of the patient
5. Communication with patients	The pharmacist is able to communicate with patients of different educational background, social status and health conditions
6. Communication with medical team members	The pharmacist can effectively communicate with the various medical staff such as the physician, nurse and others to correct medication errors, if any, and to make treatment recommendations based on scientific basis
7. Follow-up on the safety and effectiveness of the treatment provided to the patient	The pharmacist is able to apply the basic concepts of drug chemistry and pharmacology in interpreting drug interactions and providing pharmaceutical advice to medical staff and the community
8. Handling and dispensing of medications	The pharmacist is capable of educating the patient in the aspects of the use of different dosage forms, proper storage, and disposal

9. Preparation of pharmaceutical products and extemporaneous compounding	The pharmacist is able to prepare compounded dosage products in the pharmacy as needed and work in the pharmaceutical industry
Ethics	
1. Dealing with patients with the ethics of the pharmacy profession	The pharmacist maintains the privacy of the patient and makes the security and safety of the patient and the community the first goal of the pharmacy profession
2. Teamwork with other colleagues within the health care team in the work environment	The pharmacy student and the pharmacist deals with his classmates and colleagues in a team spirit

3. Teaching and Learning Strategies
<ul style="list-style-type: none"> ● Presentations ● Interactive discussions ● Brainstorming ● Small groups ● Research ● Flipped classroom s ● Panel discussions ● Field visits to institutions and entities associated with the work of the pharmacist ● Voluntary work, seminars, workshops and exhibitions

4. Evaluation methods
<ul style="list-style-type: none"> ● Individual and group assignments and reports ● Daily and weekly exams ● Assessment of practical skills ● Mid-term and final exams ● Graduation projects

5. Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Professor	5	4	*		5	0
Assistant Professor	7	5	*		5	2

Teacher	15	11	*		12	3
Assistant teacher	23	14	*		21	2

*.Teaching Methods course certificate and a Teaching Qualification certificate

Professional Development
Mentoring new faculty members
<ul style="list-style-type: none"> • Teaching methods course • Teaching validity course
Professional development of faculty members
<p>Workshops, seminars and courses in:</p> <ul style="list-style-type: none"> • The methods and strategies of pharmaceutical education • The basis for assessments and exam design • Interactive education strategies • Foundations and methods for updating and developing the curriculum

6. Acceptance Criterion
High school GPA and physical health as approved by the Ministry of higher Education and Scientific Research

7. The most important sources of information about the program
<ul style="list-style-type: none"> • The college's website in both Arabic and English • The website of the Ministry of Higher Education and Scientific Research • The page of Baghdad College of Medical Sciences on social media. • The announcement boards and signs are installed in the halls of the college • Official documentation

8. Program Development Plan
<ul style="list-style-type: none"> • Implementation objective structured clinical exam (OSCE) for all clinical pharmacy courses and related course • Incorporate Active Learning Strategies • Expand the use of technology in education • Foster Research and Inquiry • Develop Practical Skills

- Encourage Interdisciplinary Collaboration
- Professional Development for Faculty
- Further student-Centered Approach

Program Skills Outline																			
		Required program Learning outcomes																	
Year /Level	Course	Knowledge							Skills									Ethics	
		A1	A 2	A 3	A 4	A 5	A 6	A 7	B 1	B 2	B 3	B 4	B5	B 6	B 7	B 8	B 9	C1	C2
First year	Biology	/							/	/			/	/				/	/
	Principles of pharmacy practice			/	/				/	/							/		/
	Analytical chemistry		/						/								/		/
	Medical terminology							/		/			/	/					/
	Mathematics and biostatistics						/			/				/					/
	Human anatomy	/							/	/				/					/
	Pharmaceutical calculations			/	/				/	/							/		/
	Medical physics						/		/	/				/					/
	Organic Chemistry I		/							/							/		/
	Histology	/							/	/				/					/
	Human Rights + Democracy					/							/	/				/	/
	Computers								/	/				/					/
	Crimes of Baath party					/													
	Organic chemistry II		/						/								/		/

Second year	Microbiology I							/	/	/			/				/
	Physical pharmacy I		/	/				/	/						/		/
	Physiology I	/					/		/					/		/	/
	Computer							/	/				/				/
	Organic chemistry III		/					/	/						/		/
	Microbiology II.							/	/	/			/				/
	Physical pharmacy II		/	/				/	/						/		/
	Physiology II	/					/		/					/		/	/
	Pharmacognosy I		/				/	/	/	/	/					/	
	Arabic language											/	/			/	/
	Crimes of Baath party					/											
Third year	inorganic pharmaceutical chemistry I		/				/	/	/						/		/
	pharmacognosy II	/					/	/	/	/	/					/	
	Pharmaceutical technology I			/				/	/	/				/	/	/	/
	Biochemistry I	/						/	/	/			/				/
	Pathophysiology	/						/	/				/				/
	Organic Pharmaceutical Chemistry I		/				/	/	/						/		/
	Pharmacology I			/	/							/	/	/	/		/

	Pharmaceutical technology II			/				/	/	/					/	/	/	/
	biochemistry II	/						/	/	/			/					/
	Pharmacognosy III		/				/	/	/	/	/						/	
	Pharmacy ethics					/						/	/				/	/
Fourth year	Pharmacology II		/	/		/		/			/	/	/	/			/	/
	Organic Pharmaceutical Chemistry II		/				/	/	/							/		/
	Clinical Pharmacy I	/			/		/			/	/	/		/	/		/	/
	Biopharmaceutics	/		/			/	/	/		/			/				/
	Public health	/			/		/			/							/	/
	pharmacology III								/				/					/
	Organic Pharmaceutical Chemistry III		/	/		/		/				/	/	/	/		/	/
	Clinical pharmacy II		/				/	/	/							/		/
	General toxicology	/			/		/		/	/	/	/	/	/	/	/		/
	Industrial Pharmacy I		/		/			/	/		/	/	/	/			/	/
	Communication skills		/	/		/		/	/							/		/
Fifth year	Organic Pharmaceutical Chemistry IV		/				/		/									
	Industrial pharmacy II		/	/		/	/	/								/		/
	Applied therapeutics I	/			/		/			/	/			/	/		/	/

Clinical chemistry	/							/	/	/		/	/				/	/
Training of clinical laboratories	/							/	/	/		/	/				/	/
Clinical toxicology																		
Graduation project	/								/									
Pharmacoeconomics						/			/	/								/
Applied therapeutics II	/			/			/			/	/			/	/		/	/
Therapeutic drug monitoring			/	/			/			/	/		/	/			/	/
Advanced pharmaceutical analysis		/	/					/	/									/
Hospital training	/			/			/			/	/	/	/	/	/		/	/
Dosage form design		/					/		/									
Pharmaceutical biotechnology		/	/			/	/	/								/		/

- Please tick the boxes corresponding to the individual program learning outcomes under evaluation.