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 Course Description Guide University of Alkafeel/College of Pharmacy

2026-2027

Academic Program Description Form

University Name: University of Alkafeel

Faculty/Institute: College of Pharmacy

Scientific Department:

Academic or Professional Program Name: Bachelor of Pharmacy

Final Certificate Name: Bachelor of Pharmacy

Academic System: Semester

Description Preparation Date: 2026-2027

File Completion Date: 28/10/2026

Signature:

Head of Department Name:

Date:

Signature:

Scientific Associate Name:

Prof.Dr.Hasanain Shakir Mahmood

Date: 28/10/2026

The file is checked by: **Asst.Prof.Muhammed Kareem Jabar**

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date: 28/10/2026

Signature:

Approval of the Dean

Asst.Prof.Dr.Saad Mashkoor Waleed

1. Program Vision

To make the Bachelor of Pharmacy program at Al-Kafeel University a distinguished scientific and professional reference at the national and regional levels in preparing scientifically, professionally, and ethically qualified pharmacists who are capable of providing safe and effective pharmaceutical care and contributing to the development of pharmacy practice, scientific research, and community service

2. Program Mission

To provide high-quality, integrated pharmaceutical education that combines basic, medical, and pharmaceutical sciences with practical and clinical applications; promotes critical thinking, lifelong learning, and scientific research; and prepares graduates to practice pharmacy professionally and responsibly, work within healthcare teams, and improve the rational and safe use of medicines.

3. Program Objectives

- Provide students with an integrated knowledge base in pharmaceutical, medical, biological, and chemical sciences required to understand medicines, their effects, and their uses.
- Develop students' skills in dispensing medicines, reviewing prescriptions, and providing drug information and pharmaceutical counseling in accordance with professional practice.
- Develop competence in clinical pharmacy and therapeutics, including evaluation of treatment plans and monitoring of medication outcomes.
- Equip students with skills in pharmaceutical preparation, dosage-form design, and evaluation of product quality and safety.

- Strengthen scientific research skills, critical appraisal of scientific evidence, and the use of reliable drug-information resources.
- Establish professional ethics, confidentiality, legal and social responsibility, and patient-safety principles.
- Prepare students for training in community pharmacies, hospitals, laboratories, and the pharmaceutical industry according to program requirements.
- Promote the critical and responsible use of drug databases, digital technologies, and artificial intelligence.
- Develop communication, teamwork, lifelong-learning, and professional-development skills.
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4. Program Accreditation

Is the program accredited? Yes / No / Under evaluation. Accrediting body: _____. Accreditation decision number and date: _____. Accreditation duration, type, and scope: _____. The official accreditation certificate or link must be attached. Institutional accreditation must be distinguished from program accreditation.

5. Other external influences

Program sponsor: Al-Kafeel University. External entities related to pharmacy training may include hospitals, community pharmacies, laboratories, and pharmaceutical-industry institutions, according to formal agreements. For each entity, document the nature of cooperation, training area, agreement duration, and supervision and assessment mechanism.

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Notes *
Institution Requirements				
College Requirements	59	180	100%	Basic
Department Requirements	–	–	–	
Summer Training	2	–	–	Met
Other				

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

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
1st /1st semester	112	Anatomy and Histology	3	2
	133	Medical Physics	1	2
	116	Analytical Chemistry	2	2
	115	Medical Terminology	1	–
		Biostatistics	2	
		Democracy and Human Rights	2	–
1st /2nd semester	127	Human Physiology I	2	2
	128	Pharmaceutical Calculations	3	2
	129	Organic Chemistry I	3	2
	1210	Computer Science	1	2
	1271	Arabic Language	2	
2nd /1st semester	211	Organic Chemistry II	3	2

	212	Medical Microbiology I	3	2
	213	Physical Pharmacy I	3	2
	214	Physiology II	2	2
		Crimes of the Baath regimen in Iraq	2	–
		Computer Sciences	1	2
		Arabic Language	2	–
2nd /2ndsemester	212	Medical Microbiology II	2	2
	228	Physical Pharmacy II	3	2
	229	Physiology III	2	
	2210	Pharmacognosy I	2	2
		Biochemistry I	3	2
		Personal and Professional Development	2	
		Nutrition	2	
3rd /1st semester	311	In Organic Pharmaceutical Chemistry	2	2
	312	Pharmacognosy II	2	2
	313	Pharmaceutical Technology I	3	2
	314	Biochemistry I	3	2
	315	Pathophysiology	3	2
3rd /2nd semester	326	Organic Pharmaceutical Chemistry I	3	2
	327	Pharmacology I	3	–
	328	Pharmaceutical and Cosmetic Preparations	3	2
	329	Biochemistry II	3	2
	3211	Pharmacy Ethics	1	–
	3210	Pharmacognosy III	2	2

4th /1st semester	411	Pharmacology II	3	2
	412	Organic Pharmaceutical Chemistry II	3	2
		Clinical Pharmacy I	2	2
		Biopharmaceutics	2	2
		Public Health	2	
4th /1st semester		Pharmacology III	2	
		Organic Pharmaceutical Chemistry III	3	2
		Clinical Pharmacy II	2	2
		General Toxicology	2	2
		Industrial Pharmacy I	3	2
		Communication Skills	2	
5th /2nd semester		Organic Pharmaceutical Chemistry IV	2	
		Industrial Pharmacy II	3	2
		Applied Therapeutics I	3	
		Clinical Chemistry	3	2
		Clinical Laboratory Training		4
		Clinical Toxicology	2	2
		Graduation Project	1	
5th /2nd semester		Pharmacoeconomic	2	
		Applied Therapeutics II	2	
		Therapeutic Drug Monitoring TDM	2	2
		Advanced Pharmaceutical Analysis	3	2
		Hospital Training		4
		Drug Delivery Systems	2	
		Pharmaceutical Biotechnology	1	

8. Expected learning outcomes of the program	
Knowledge	
Learning Outcomes 1	• Explain the basic and advanced principles of pharmaceutical, medical, biological, and chemical sciences related to medicines. • Interpret drug mechanisms of action, pharmacokinetic and pharmacodynamic properties, therapeutic uses, and adverse effects. • Describe the principles of dosage-form design, preparation, and evaluation of quality, stability, and safety. • Explain disease principles and pathophysiology relevant to treatment selection and monitoring. • Identify the legislation and ethical principles governing pharmacy practice.
Skills	
Learning Outcomes 2	• Analyze prescriptions and medication cases and identify drug-therapy-related problems. • Evaluate scientific evidence and drug-information sources and distinguish reliable from unreliable information. • Compare therapeutic options according to efficacy, safety, suitability, and cost when data are available. • Interpret laboratory test results relevant to drug therapy within the limits of professional competence. • Design a research or applied project and analyze its results.
Practical and Professional Skills Learning Outcomes 3	• Dispense medicines, review prescriptions, and verify doses, interactions, and contraindications within professional scope. • Provide pharmaceutical counseling, health education, and communicate with patients and caregivers. • Prepare and evaluate pharmaceutical products and perform laboratory tests according to safety and quality procedures. • Monitor medication-related problems and report adverse drug reactions in accordance with applicable systems. • Use drug databases and digital information sources.
Ethics	
Learning Outcomes 4	• Adhere to pharmacy professional ethics, confidentiality, and patients' rights.

	• Assume professional responsibility and work within a multidisciplinary healthcare team. • Respect laws and regulations, patient-safety principles, and the rational use of medicines. • Engage in lifelong learning, self-development, and keeping up with scientific advances.
Learning Outcomes 5	Learning Outcomes Statement 5

9. Teaching and Learning Strategies

- Interactive lectures and active learning.
- Case-Based Learning in therapeutics and clinical pharmacy.
- Problem-Based Learning when appropriate to the course.
- Team-Based Learning, concept maps, and discussion.
- Practical laboratory training in pharmaceutical chemistry, pharmaceutics, and analytical procedures.
- Clinical simulation and training in communication and pharmaceutical counseling skills.
- Field training in pharmacies, hospitals, and related institutions under formal agreements.
- Self-directed learning and searching drug databases and scientific references.
- Presentations, projects, and e-learning when appropriate.

10. Assessment Methods

- Written examinations (quizzes, midterm, and final examinations) to assess knowledge, understanding, and application, including MCQs, short-answer questions, and clinical cases.

- Practical and laboratory examinations to assess pharmaceutical, chemical, and biological analyses, preparation of products, and report writing.
- Clinical and skills assessment (OSCE or skills stations when available) to assess pharmaceutical counseling, prescription review, and clinical communication.
- Clinical cases and prescription analysis to assess critical thinking and identification of drug-related problems.
- Projects, reports, and presentations to assess scientific research, evidence appraisal, and teamwork.
- Field-training assessment by supervisors in hospitals, pharmacies, and approved training sites.
- Continuous assessment through assignments, quizzes, participation, and feedback.

11. Faculty

Faculty Members

Academic Rank	General Specialization		Specific Specialization		Lecturers	
Professor	1		1		5	
Assistant Professor	5		2		9	
Lecturer	3		3		5	
Assistant Lecturer	8		12		12	

Professional Development

Professional Development Objectives

- Improve faculty members' competence in teaching pharmaceutical and clinical sciences and practical assessment.
- Strengthen skills in designing clinical cases, OSCE stations, and objective assessment tools.

- Develop scientific research, publication, and research-ethics capabilities.
- Promote continuous training on drug updates, databases, and evidence-based practice.

Professional Development Strategies

- Academic preparation programs in pharmacy teaching methods and learning-outcome design.
- Workshops on student assessment, question writing, rubrics, and OSCE stations.
- Periodic clinical or professional training for faculty according to specialization.
- Support participation in conferences, research teams, and multidisciplinary collaboration.
- Evaluate the impact of professional development on faculty and student performance, rather than recording attendance alone.

12. Acceptance Criterion

Admission is governed by the regulations and instructions issued by the Ministry of Higher Education and Scientific Research and the relevant authorities, according to the approved admission channel, admission averages, and requirements for the relevant academic year.

13. The most important sources of information about the program

1. The officially approved study plan for the Bachelor of Pharmacy program.
2. The websites of the College of Pharmacy and Al-Kafeel University.
3. The Ministry of Higher Education and Scientific Research and the Department of Quality Assurance and Academic Accreditation.
4. The current national standards for accreditation of pharmacy colleges in Iraq.
5. Reliable pharmaceutical scientific references and drug-information databases.

6.	Clinical and field-training reports and surveys of students, graduates, and employers.

14. Program Development Plan
• Review course content annually and align it with drug updates and evidence-based pharmacy practice. • Increase practical and clinical training in hospitals, community pharmacies, laboratories, and pharmaceutical-industry institutions through documented agreements. • Develop clinical cases, simulation, and OSCE stations when resources and scoring criteria are available. • Promote critical and responsible use of drug databases, digital sources, and artificial intelligence. • Develop graduation projects, research skills, and scientific evidence appraisal. • Conduct community-awareness activities on rational medicine use and pharmacovigilance. • Measure achievement of learning outcomes and satisfaction of students, graduates, and employers, and convert findings into documented improvement actions.

Program Skills Matrix – Bachelor of Pharmacy

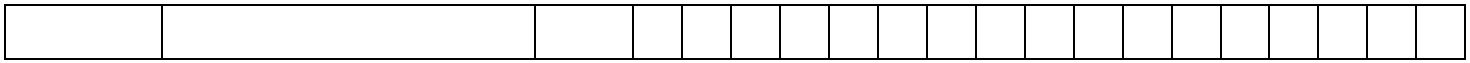
Core courses are marked as compulsory. The matrix links each course to the program knowledge (K), skills (S), and values (V) outcomes. The slash marks in the English matrix are a provisional reconstruction based on course subject areas; the department should verify them against the approved Arabic matrix before formal submission.

Year / Semester	Course Name	Course Type	K 1	K 2	K 3	K 4	K 5	K 6	S 1	S 2	S 3	S 4	S 5	S 6	S 7	S 8	V 1	V 2	V 3
Year 1 / Semester 1	Anatomy and Histology	Core	/			/			/			/							/
Year 1 / Semester 1	Medical Physics	Core	/			/			/			/							/
Year 1 / Semester 1	Analytical Chemistry	Core	/		/		/				/	/				/			/
Year 1 / Semester 1	Medical Terminology	Core						/		/			/	/	/	/	/	/	/
Year 1 / Semester 1	Biostatistics	Core	/			/			/			/							/
Year 1 / Semester 1	Democracy and Human Rights	Core						/		/			/	/	/	/	/	/	/
Year 1 / Semester 2	Human Physiology I	Core	/			/			/			/							/
Year 1 / Semester 2	Pharmaceutical Calculations	Core	/						/										/
Year 1 / Semester 2	Organic Chemistry I	Core	/		/		/				/	/				/			/
Year 1 / Semester 2	Computer Science	Core						/		/			/	/	/	/	/	/	/

Year 1 / Semester 2	Arabic Language	Core						/		/			/	/	/	/	/	/	/

Year / Semester	Course Name	Course Type	K 1	K 2	K 3	K 4	K 5	K 6	S 1	S 2	S 3	S 4	S 5	S 6	S 7	S 8	V 1	V 2	V 3
Year 2 / Semester 1	Medical Microbiology I	Core	/			/			/			/							/
Year 2 / Semester 1	Physical Pharmacy I	Core	/		/		/				/	/			/	/	/		/
Year 2 / Semester 1	Human Physiology II	Core	/			/			/			/							/
Year 2 / Semester 1	Computer Science	Core						/		/			/	/	/	/	/	/	/
Year 2 / Semester 1	Crimes of the Ba'ath Party	Core	/						/										/

Year 2 / Semester 1	**Organic Chemistry II**	Core	/		/		/				/	/				/			/
Year 2 / Semester 1	Arabic Language	Core						/		/			/	/	/	/	/	/	/
Year 2 / Semester 2	Medical Microbiology II	Core	/			/			/			/							/
Year 2 / Semester 2	Physical Pharmacy II	Core	/		/		/				/	/			/	/	/		/
Year 2 / Semester 2	Human Physiology III	Core	/			/			/			/							/
Year 2 / Semester 2	Pharmacognosy	Core	/						/										/
Year 2 / Semester 2	Biochemistry I	Core	/		/	/	/		/		/	/				/			/
Year 2 / Semester 2	Personal and Professional Development	Core	/			/			/			/							/
Year 2 / Semester 2	Nutrition	Core	/			/			/			/							/



Program Skills Matrix – Bachelor of Pharmacy (continued)

Year / Semester	Course Name	Course Type	K 1	K 2	K 3	K 4	K 5	K 6	S 1	S 2	S 3	S 4	S 5	S 6	S 7	S 8	V 1	V 2	V 3
Year 3 / Semester 1	In Organic Pharmaceutical Chemistry	Core	/		/		/				/	/				/			/
Year 3 / Semester 1	**Pharmacognosy II**	Core	/						/										/
Year 3 / Semester 1	**Pharmaceutical Technology I**	Core	/		/		/				/	/			/	/	/		/
Year 3 / Semester 1	Biochemistry I	Core	/		/	/	/		/		/	/				/			/
Year 3 / Semester 1	**Pathophysiology**	Core	/			/			/			/							/
Year 3 / Semester 2	Pharmaceutical Organic Chemistry I	Core	/		/		/				/	/				/			/
Year 3 / Semester 2	Pharmacology I	Core		/		/		/	/	/	/	/	/	/			/	/	/

Year 3 / Semester 2	Pharmaceutical and Cosmetic Preparations	Core	/		/		/				/	/			/	/	/		/
Year 3 / Semester 2	Biochemistry II	Core	/		/	/	/		/		/	/				/			/
Year 3 / Semester 2	Pharmacognosy III	Core	/						/										/
Year 3 / Semester 2	Pharmacy Ethics	Core	/		/		/	/		/	/	/	/	/	/	/	/	/	/

Program Skills Matrix – Bachelor of Pharmacy (continued)

Year / Semester	Course Name	Course Type	K 1	K 2	K 3	K 4	K 5	K 6	S 1	S 2	S 3	S 4	S 5	S 6	S 7	S 8	V 1	V 2	V 3
Year 4 / Semester 1	Pharmacology II	Core		/		/		/	/	/	/	/	/	/			/	/	/
Year 4 / Semester 1	**Organic Pharmaceutical Chemistry II**	Core	/		/		/				/	/				/			/
Year 4 / Semester 1	Clinical Pharmacy I	Core	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Year 4 / Semester 1	Biopharmaceutics	Core	/		/		/				/	/			/	/	/		/
Year 4 / Semester 1	Public Health	Core	/						/										/
Year 4 / Semester 2	Pharmacology III	Core		/		/		/	/	/	/	/	/	/			/	/	/
Year 4 / Semester 2	**Organic Pharmaceutical Chemistry** III	Core	/		/		/				/	/				/			/

Year 4 / Semester 2	Clinical Pharmacy II	Core	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Year 4 / Semester 2	General Toxicology	Core		/		/		/	/	/	/	/	/	/			/	/	/
Year 4 / Semester 2	Industrial Pharmacy I	Core	/		/		/				/	/			/	/	/		/
Year 4 / Semester 2	Communication Skills	Core						/		/			/	/	/	/	/	/	/
Year 5 / Semester 1	Pharmaceutical Organic Chemistry IV	Core	/		/		/				/	/				/			/

Program Skills Matrix – Bachelor of Pharmacy (continued)

Year / Semester	Course Name	Course Type	K 1	K 2	K 3	K 4	K 5	K 6	S 1	S 2	S 3	S 4	S 5	S 6	S 7	S 8	V 1	V 2	V 3
Year 5 / Semester 1	Organic Pharmaceutical Chemistry IV	Core	/		/		/				/	/				/			/
Year 5 / Semester 1	Industrial Pharmacy II	Core	/		/		/				/	/			/	/	/		/
Year 5 / Semester 1	Applied Therapeutics I	Core		/		/		/	/	/	/	/	/	/			/	/	/
Year 5 / Semester 1	Clinical Chemistry	Core	/	/	/	/	/	/	/	/	/	/	/	/		/	/	/	/
Year 5 / Semester 1	Clinical Laboratory Training	Core						/		/			/	/	/	/	/	/	/

Year 5 / Semester 1	Clinical Toxicology	Core		/		/		/	/	/	/	/	/	/			/	/	/
Year 5 / Semester 1	Graduation Project	Core						/		/			/	/	/	/	/	/	/
Year 5 / Semester 2	**Pharmacoeconomic**	Core						/		/			/	/	/	/	/	/	/
Year 5 / Semester 2	Applied Therapeutics II	Core		/		/		/	/	/	/	/	/	/			/	/	/
Year 5 / Semester 2	**Therapeutic Drug Monitoring TDM**	Core						/		/			/	/	/	/	/	/	/
Year 5 / Semester 2	Advanced Pharmaceutical Analysis	Core	/		/		/				/	/				/			/
Year 5 / Semester 2	Hospital Training	Core						/		/			/	/	/	/	/	/	/
Year 5 / Semester 2	Drug Delivery Systems	Core	/		/		/				/	/			/	/	/		/
Year 5 / Semester 2	**Pharmaceutical Biotechnology**	Core	/						/										/

Course Description Form

1. Course Name:
2. Course Code:
3. Semester / Year:
4. Description Preparation Date:
5. Available Attendance Forms:
6. Number of Credit Hours (Total) / Number of Units (Total)
7. Course administrator's name (mention all, if more than one name)
Name: Email:
8. Course Objectives

Course Objectives	• ..... • ..... • .....

9. Teaching and Learning Strategies

Strategy	

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	