Ministry of Higher Education and Scientific Research

Scientific Supervision and Evaluation Authority
Department of Quality Assurance and Academic Accreditation

Academic Program Description Form for Colleges and Institutes

Academic Year 2025–2026

University: Shatt Al-Arab University College
College/Institute: College of Science
Scientific Department: Pathological Analysis Sciences
Date of preparation: 1 September 2025

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دقق الملف من قبل: شعبة ضمان الجودة والأداء الجامعي
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مصادقة عميد الكلية

Academic Program Description

This academic program description provides a concise summary of the program's most important characteristics and the learning outcomes students are expected to achieve. It demonstrates whether students have made the most of the available opportunities and is accompanied by a description of each course in the program.

1. Educational Institution	Shatt Al-Arab University College
2. Scientific Department / Center	Department of Pathological Analysis Sciences
3. Academic or Professional Program Title	Pathological Analysis Sciences
4. Final Degree Title	Bachelor's Degree in Pathological Analysis Sciences
5. Study System	Bologna Process
6. Approved Accreditation Program	Not specified in the form.
7. Other External Influences	Program outcomes are influenced by relevant laws and guidelines, the educational laboratories within the college and hospital laboratories, scientific research projects, field visits, and future summer training programs.
8. Date of Preparation	1 September 2025

9. Academic Program Objectives

- Provide students with fundamental theoretical knowledge in pathological analysis sciences, including clinical chemistry, microbiology, hematology, immunology, histopathology, and related fields.
- Develop students' practical skills in performing medical laboratory tests in accordance with scientific principles and international quality standards.
- Prepare specialized personnel to work in medical laboratories in hospitals, health centers, and research laboratories.
- Strengthen critical-thinking and problem-solving skills by training students to interpret laboratory results and relate them to disease conditions.
- Contribute to community health by supplying the healthcare sector with qualified personnel who support early diagnosis and treatment monitoring.
- Encourage scientific research in pathological analysis to develop diagnostic methods and improve healthcare services.

10. Required Program Outcomes, and Teaching, Learning and Assessment Methods

A. Knowledge Objectives

1. Explain the theoretical foundations of laboratory testing in clinical chemistry, microbiology, hematology, immunology, and histopathology.
2. Explain how laboratory instruments operate and the physical and chemical principles on which they are based.
3. Describe the relationship between laboratory test results and a patient's clinical condition, and understand the laboratory's role in diagnosis and treatment.
4. Identify quality-control procedures and standard requirements in medical laboratories.
5. Explain the basic principles of biosafety and risk prevention when handling biological specimens.
6. Understand recent scientific developments in pathological analysis and laboratory diagnostic techniques.

B. Program-Specific Skills Objectives

1. Perform laboratory tests in clinical chemistry, hematology, microbiology, immunology, and histopathology accurately and efficiently.

2. Use modern laboratory instruments and equipment correctly, with the ability to perform calibration and basic maintenance.
3. Interpret and analyze laboratory results and relate them to possible pathological disorders.

Teaching and Learning Methods

1. Classroom lectures: presenting core theoretical concepts using modern educational tools, including presentations, videos, and interactive boards.
2. Practical laboratories: developing applied skills through direct performance of laboratory tests and analyses.
3. Clinical/field training: providing practical experience in hospitals and real-world medical laboratories.
4. Small projects and research assignments: encouraging independent learning and the use of current scientific sources.
5. E-learning: using educational platforms, recorded lectures, and online tests to support continuous learning.

Assessment Methods

- Central and monthly examinations
- Surprise quizzes
- Reports
- Practical examinations
- Projects and research

C. Affective and Values-Based Objectives

1. Adhere to professional ethics and maintain the confidentiality and privacy of patient information.
2. Demonstrate responsibility and discipline in laboratory tasks, with attention to accuracy and objectivity.
3. Develop cooperation and teamwork with colleagues and medical personnel to create an integrated working environment.
4. Foster continuous learning and self-development to keep pace with scientific and technological progress in pathological analysis.

Teaching and Learning Methods

Collaborative learning; group discussions; individual learning.

Assessment Methods

1. Student assessment and monitoring.
2. Tests and problem-solving exercises.
3. Submission of homework and other tasks assigned during lectures.

D. General and Transferable Skills (Employability and Personal Development)

1. Demonstrate effective written and oral communication with colleagues, medical personnel, and patients.
2. Work as part of a team and demonstrate leadership and cooperation in a multidisciplinary environment.
3. Use modern technologies, including computers, databases, and laboratory management systems, for research, analysis, and documentation of results.
4. Manage time and organize tasks to improve professional efficiency and support continuous learning and personal development.

11. Program Structure

Semester	Year	Course Code	Course Title	Theory Hours	Practical Hours
First	1	PATH-111	Principles of Microbiology	2	2
First	1	PATH-112	Human Cytology	2	2
First	1	PATH-113	Analytical Chemistry	2	2
First	1	PATH-114	Medical Terminology	2	—
First	1	UNI-103	Computer	1	2
First	1	UNI-102	Arabic Language	2	—
Second	1	PATH-121	Principles of Pathological Analysis	2	2

	Second	1	PATH-122	Human Anatomy	2	2
	Second	1	PATH-123	Medical Physics	2	2
	Second	1	PATH-124	Biostatistics	2	—
	Second	1	PATH-125	Occupational Laboratory Safety	2	—
	Second	1	UNI-101	English Language	2	—
	Second	1	UNI-104	Democracy and Human Rights	2	—
	First	2	PATH-211	Human Histology	2	2
	First	2	PATH-212	Pathogenic Bacteriology	2	2
	First	2	PATH-213	Medical Virology	2	2
	First	2	PATH-214	Principles of Physiology	2	2
	First	2	PATH-215	Parasitic Protozoa	2	2
	First	2	UNI-121	Crimes of the Defunct Ba'ath Party	2	—
	Second	2	PATH-221	Tissue Culture and Preparation	2	2
	Second	2	PATH-222	Medical Mycology	2	2
	Second	2	PATH-223	Principles of Immunology	2	2
	Second	2	PATH-224	Medical Physiology	2	2
	Second	2	PATH-225	Parasitic Helminths	2	2
	Second	2	PATH-226	Biochemistry	2	2
	First	3	PATH-311	Infectious Diseases	2	2
	First	3	PATH-312	Clinical Immunology	2	2
	First	3	PATH-313	Medical Molecular Biology	2	2
	First	3	PATH-314	Pathological Analyses	2	2
	First	3	PATH-315	Microbial Diagnosis	2	2
	Second	3	PATH-321	Research Methodology	2	—
	Second	3	PATH-322	Medical Genetics	2	2
	Second	3	PATH-323	Enzymology	2	2
	Second	3	PATH-324	Antibiotics	2	2
	Second	3	PATH-325	Hematology	2	2
	First	4	PATH-411	Blood Diseases	2	2
	First	4	PATH-412	Clinical Chemistry	2	2
	First	4	PATH-413	Medical Biotechnology	2	2
	First	4	PATH-414	Toxicology	2	2
	First	4	PATH-415	Elective 1	2	2
	First	4	PATH-416	Research Project	2	2
	Second	4	Sc-PATH421	Endocrinology	2	2
	Second	4	Sc-PATH422	Histopathology	2	2
	Second	4	Sc-PATH423	Genetic Engineering	2	2
	Second	4	Sc-PATH424	Epidemiology	2	—
	Second	4	Sc-PATH425	Elective 2	2	2
	Second	4	Sc-PATH426	Research Project	—	2

12. Personal Development Planning

1. Develop self-learning skills through ongoing research, following current scientific sources, and participating in specialized courses and workshops.
2. Build a future career path by identifying professional goals—such as working in hospital laboratories or research centers, or pursuing postgraduate studies—and creating a plan to achieve them.
3. Develop personal and social skills, including leadership, time management, and teamwork, to improve employability and professional success.

13. Admission Criteria

1. Central admission.
2. The student's average must fall within the central admission lists.
3. The required admission average for the department chosen by the student.
4. The department's available capacity.

14. Main Information Source for the Program

https://sa-uc.edu.iq

Curriculum Skills Matrix

Please place a check mark in the boxes corresponding to the individual learning outcomes of the program being evaluated

Required Learning Outcomes of the Program																			
General, Qualifying, and Transferable Skills (Other skills related to employability and personal development)				Affective and Values Objectives				Program-Specific Skills Objectives				Cognitive Objectives				Core or Elective	Course Title	Course Code	Year / Level
D4	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	C	Principles of microbiology	PATH- 111	First Stage
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	C	Human cytology	PATH- 112	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	B	Analytical chemistry	PATH- 113	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	B	Medical terminology	PATH- 114	
✓	✓	✓	✓	✓	✓	✓	✓	✓								B	Computer	UNI- 103	
✓	✓	✓	✓	✓	✓	✓	✓	✓								B	Arabic Language	UNI- 102	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	C	Principle of pathological analysis	PATH-121	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	C	Human anatomy	PATH-122	
✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	B	Medical physics	PATH-123	
✓	✓	✓	✓	✓	✓	✓	✓						✓		✓	B	Biostatistics	PATH-124	
✓	✓	✓	✓	✓	✓	✓	✓			✓		✓				B	Occupational laboratory safety	PATH-125	
✓	✓	✓	✓	✓	✓	✓	✓									B	English Language	UNI- 101	
																B	Democracy & Human Rights	UNI- 104	

Curriculum Skills Matrix

Please place a check mark in the boxes corresponding to the individual learning outcomes of the program being evaluated

Required Learning Outcomes of the Program																			
General, Qualifying, and Transferable Skills (Other skills related to employability and personal development)				Affective and Values Objectives				Program-Specific Skills Objectives				Cognitive Objectives				Core or Elective	Course Title	Course Code	Year / Level
D4	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
																C	Human histology	PATH- 211	Second Stage
																C	Pathogenic bacteriology	PATH- 212	
																C	Medical virology	PATH- 213	
																C	Principles of physiology	PATH- 214	
																C	parasitic protozoa	PATH- 215	
																S	Crimes of the defunct baath	UNI- 121	
																C	Tissue culture and preparation	PATH-221	
																C	Medical mycology	PATH-222	
																C	Principles of immunology	PATH-223	
																C	Medical physiology	PATH-224	
																C	Parasitic helminths	PATH-225	
																B	Biochemistry	PATH-226	

Curriculum Skills Matrix

Please place a check mark in the boxes corresponding to the individual learning outcomes of the program being evaluated

Required Learning Outcomes of the Program																			
General, Qualifying, and Transferable Skills (Other skills related to employability and personal development)				Affective and Values Objectives				Program-Specific Skills Objectives				Cognitive Objectives				Core or Elective	Course Title	Course Code	Year / Level
D4	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
																C	Infectious diseases	PATH-311	Third Stage
																C	Clinical immunology	PATH-312	
																C	Medical molecular biology	PATH-313	
																C	Pathological analyses	PATH-314	
																C	Microbial diagnosis	PATH-315	
																C	Research methodology	PATH-321	
																C	Medical genetics	PATH-322	
																C	Enzymology	PATH-323	
																C	Antibiotics	PATH-324	
																C	Hematology	PATH-325	

Curriculum Skills Matrix

Please place a check mark in the boxes corresponding to the individual learning outcomes of the program being evaluated

Required Learning Outcomes of the Program																			
General, Qualifying, and Transferable Skills (Other skills related to employability and personal development)				Affective and Values Objectives				Program-Specific Skills Objectives				Cognitive Objectives				Core or Elective	Course Title	Course Code	Year / Level
D4	D3	D2	D1	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
																C	Blood diseases	PATH-411	Fourth Stage
																C	Clinical chemistry	PATH-412	
																C	Medical biotechnology	PATH-413	
																C	Toxicology	PATH-414	
																E	Option 1	PATH-415	
																C	Research Project	PATH-416	
																C	Endocrinology	Sc-PATH421	
																C	Pathology	Sc-PATH422	
																C	Genetic engineering	Sc-PATH423	
																C	Epidemiology	Sc-PATH424	
																C	Option 2	Sc-PATH425	
																E	Research Project	Sc-PATH426	