

**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**

**2024**

## **Introduction:**

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

## **Concepts and terminology:**

**Academic Program Description:** The academic program description provides a brief summary of its vision, mission and objectives, including an accurate

description of the targeted learning outcomes according to specific learning strategies.

**Course Description:** Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

**Program Vision:** An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

**Program Mission:** Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

**Program Objectives:** They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

**Curriculum Structure:** All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

**Learning Outcomes:** A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

**Teaching and learning strategies:** They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

## Academic Program Description Form

**University Name:** Al-Furat Al-Awsat Technical University

**Faculty/Institute:** College of Health and Medical Techniques

**Scientific Department:** Medical Laboratory Techniques

**Academic or Professional Program Name:** Medical Laboratory Techniques

**Final Certificate Name:** Medical Laboratory Techniques

**Academic System:** Course and Yearly

**Description Preparation Date:** 27/2/2024

**File Completion Date:** 27/2/2024

**Signature:**

**Head of Department Name:**

**Date:**

**Signature:**

**Scientific Associate Name:**

**Date:**

**The file is checked by:**

**Department of Quality Assurance and University Performance**

**Director of the Quality Assurance and University Performance Department:**

**Date:**

**Signature:**

**Approval of the Dean**

### **1. Program Vision**

The Department of Medical Laboratory Technologies is responsible for the main reason that society needs professional medical personnel for a variety of public health and educational institutions. In addition, sports athlete to invest the skills of professors and demand in applied scientific research and learning. Likewise, there is less training and a broad understanding of technical knowledge through specialized medical laboratories to suit development in the world of pathological analysis techniques.

### **2. Program Mission**

The Medical Laboratory Technology Department came to meet the needs of health institutions for professional cadres who have acquired skills and experience according to scientific and academic standards, by training these cadres to work in these institutions, as well as supporting the private sector in this regard. Developing teaching and student cadres in the fields of medical sciences and cognitive research, and striving to create postgraduate courses that prioritize the scientific balance of the department and other institutions, which works to consolidate the vision of scientific cooperation with other institutions, corresponding scientific departments and related institutions to achieve dedication in the fields of advanced science and technology.

### **3. Program Objectives**

The department seeks to achieve the following goals:–

1. Graduates acquire basic knowledge and skills in the fields of medical laboratory analytical techniques.
2. Selecting and preparing the materials required to conduct pathological analyses.

3. Use laboratory equipment with scientific and practical skills.
4. Identifying the causes of disease, whether these causes are bacterial, parasitic, fungal or viral, and acquiring the ability to investigate them.
5. Diagnosing genetic diseases and distinguishing them from acquired diseases.
6. Dealing with infectious and communicable disease cases and how to prevent them inside the laboratory by implementing occupational safety guidelines.
7. Familiarity with the human aspects of the patient, which is an important part of treatment.

#### 4. Program Accreditation

A detailed study was submitted to obtain accreditation, including a self-evaluation report, improvement plan, and conformity report.

#### 5. Other external influences

Al-Furat Al-Awsat Technical University.

#### 6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	32	174	100%	
College Requirements				
Department Requirements	32	174	100%	
Summer Training	2	Satisfied	100%	
Other				

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

## 7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
The first stage, the first semester		General Chemistry	2	5
		Human Biology	2	0
		Instrumental Analysis	1	3
		Terminology	2	-
		Applied Computer	1	2
		Human right and democracy	2	-
		English	3	-
		Medical ethics	2	-
	The First stage, second semester		General Chemistry	2
		Anatomy	2	0
		Human Biology	2	0
		Instrumental Analysis	1	3
		Applied Computer	1	2
		Human right and democracy	-	2
		Arabic	2	-
The second Stage, First semester		Medical Bacteriology	2	4
		Clinical Biochemistry	2	4
		Human Physiology	2	2
		Histology	2	2
		Molecular Biology	2	4
		Medical Parasitology	2	4
Second stage, second semester		Clinical chemistry	2	4
		Physiology	2	2



		Molecular Biology	۲	۴
		Parasitology and Insects	۲	۴
		Biostatistic	1	2
		Histology	2	4
<b>Third Stage</b>		Histopathology	۲	۳
		Hematology	۲	۴
		Virology and Mycology	۲	4
		Clinical Chemistry	۲	4
		Genetics	۲	۳
		Advanced Biotechnology	۲	۲
		Applied computer	۱	۲
<b>Fourth Stage</b>		Clinical Immunology	۲	۴
		Diagnostic Bacteriology	۲	۴
		Advanced Clinical Chemistry	۲	۴
		Medical Parasitology	۲	۴
		Heamatology	۲	2
		Histopathology	۱	۳
		Methodolgy	۱	
		Blood transfusion	1	2
		Graduation Research	-	5

### 8. Expected learning outcomes of the program

#### Knowledge

Preparing cadres specialized in laboratory analysis 1

Medical laboratory management in government hospitals and the private sector 1

<b>Skills</b>	
Working on modern laboratory equipment 2	The accuracy of the results expected from the devices used and their verification 2
Ability to perform various laboratory tests for patients 3	Work on completing various tests 3
<b>Ethics</b>	
Preparing cadres specializing in medical laboratory technology who hold a bachelor's degree 4	The ability to prepare graduates in the specialty of medical laboratory technologies
Preparing cadres specializing in pathological analysis techniques who hold advanced degrees in the master's and doctoral programs 5	The ability to prepare researchers in the specialty of pathological analysis techniques

### 9. Teaching and Learning Strategies

Blended education, which consists of in-person education, including classrooms with smart screens and specialized educational laboratories according to academic subjects, in addition to electronic communication with students for the purpose of assigning some assignments and instructions.

### 10. Evaluation methods

Implementing it in all stages of the program in general.

### 11. Faculty

#### Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)	Number of the teaching staff	
	General	Special		Staff	Lecturer

Dr. Angam Jasem Mohammed	Biology	Immunology	Professor		Staff	
Dr. Raad Ajam	Biology	Parasitology	Assistant Professor		Staff	
Dr. Abdul Sammed	Biology	Physiology	Professor		Staff	
Dr. Ali Mohammed Abed	Chemistry	Clinical Biochemistry	Assistant Professor		Staff	
Dr. Emaad Abass Elmulla	Chemistry	Organic Chemistry	Professor		Staff	
Dr. Alaa Hashim Abed Ali	Pathological Analysis	Science	Assistant Professor		Staff	
Dr. Zrahaa Hameed Oda	Pathological Analysis	Bacteriology	Assistant Professor		Staff	
Razia Hussen Fadel	Pathological Analysis	Immunology	Assistant Professor		Staff	
Najat Mohammed Flaeeh	Pathological Analysis	Genetics	Lecturer		Staff	
Zahraa Abdul Alal	Biology	Physiology	Lecturer		Staff	
Fahad Dakeel Fahad	Chemistry	Physical chemistry	Assistant lecturer		Staff	
Genan Kareem Esaa	Biology	Mycology	Assistant lecturer		Staff	
Doaa Abdull Zhraa Dalee	Biology	Physiology	Assistant lecturer		Staff	
Zahraa Hussen Kadium	Biology	Physiology	Assistant lecturer		Staff	
Dr. Roaa Kareem	Biology	Immunology	lecturer		Staff	
Dr. Roaa Mohammed	Biology	Bacteriology	Lecturer		Staff	
Hawraa Saeed	Chemistry	Inorganic Chemistry	Assistant lecturer		Staff	

Hanan Hussien Mohammed	Biology	Histology	Assistant lecturer		Staff	
Zahraa Hamzaa	Chemistry	Biochemistry	Assistant lecturer		Staff	
Ashwaaq Habeeb	English	English	Assistant lecturer		Staff	
Abaas Hussien Aboid	Veterinary Medicine	Histology	Assistant lecturer		Staff	
Zahara Basim Shakeir	Biology	Bacteriology	Lecturer		Staff	
Dr. Athmaar Ali Kadium	Chemistry	Inorganic chemistry	lecturer		Staff	
Ahmed Takleef Hassani	Computer	computer	Assistant lecturer		Staff	
Mohammed Al- Shammi	Communcation Engering	Communcation Engering	lecturer		Staff	
Diaar Mohammed Kadium	Veterinary Medicine	-	-		Staff	
Safaa Ghaleb Abdul AlKareem	Electrical institute	-	-		staff	

## Professional Development

### Mentoring new faculty members

- Adherence to official working hours.
- Adherence to the timings of lectures, exams, and the course of the educational process.
- Encouraging the completion of scientific research.
- Follow up on the progress of lectures and completion rates for lectures.
- Conduct a self-report assessment.

### Professional development of faculty members

- Carrying out various scientific activities (seminars, courses, discussion groups, etc.).

- Participation in scientific conferences.
- Participation in scientific activities related to continuing education.

## **12. Acceptance Criterion**

The admission plan for the Department of Medical Laboratory Technology is 100 morning students and 100 evening students.

## **13. The most important sources of information about the program**

The official website of the college and university.

## **14. Program Development Plan**

The strategic plan for developing the educational program is described by the department and members of the Scientific Committee.

### Program Skills Outline

#### Required program Learning outcomes

Year/Level	Course Code	Course Name	Basic or optional	Required program Learning outcomes												
				Knowledge				Skills				Ethics				
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	
			General Chemistry	A1												
			Human Biology	A1												
			Instrumental Analysis	A1												
			Terminology	A1												
			Applied Computer	A1												
			Human right and democracy	A1												
			English	A1												

			Medical ethics	A1													
	<b>The First stage, second semester</b>		General Chemistry	A1													
			Anatomy	A1													
			Human Biology	A1													
			Instrumental Analysis	A1													
			Applied Computer	A1													
			Human right and democracy	A1													
			Arabic	A1													
	<b>The second Stage, First</b>		Medical Bacteriology	A1													

	<b>semester</b>																
			<b>Clinical Biochemistry</b>														
			<b>Human Physiology</b>														
			<b>Histology</b>														
			<b>Molecular Biology</b>														
			<b>Medical Parasitology</b>														
	<b>Second stage, second semster</b>		<b>Clinical chemistry</b>														
			<b>Physology</b>														
			<b>Molecular</b>														



			<b>Biology</b>												
			<b>Parasitology and Insects</b>												
			<b>Biostatistic</b>												
			<b>Histology</b>												
	<b>Third Stage</b>		<b>Histopathology</b>												
			<b>Hematology</b>												
			<b>Virology and Mycology</b>												
			<b>Clinical Chemistry</b>												
			<b>Genetics</b>												
			<b>Advanced Biotechnology</b>												
			<b>Applied</b>												

			computer												
	<b>Fourth Stage</b>		<b>Clinical Immunology</b>												
			<b>Diagnostic Bacteriology</b>												
			<b>Advanced Clinical Chemistry</b>												
			<b>Medical Parasitology</b>												
			<b>Haematology</b>												
			<b>Histopathology</b>												
			<b>Methodology</b>												
			<b>Blood transfusion</b>												

			<b>Graduation Research</b>													
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- **Please tick the boxes corresponding to the individual program learning outcomes under evaluation.**

