Academic Program Description Form

University Name: Sadr AL Iraq University College

Faculty/ Institute: Sadr AL Iraq University College

Department: Medical Laboratory Techniques

Academic or Professional Program Name: Bachelor degree

Final Certificate Name: Bachelor of Medical Laboratory Techniques

Academic System: course/ annual

Description Preparation Date: /

File Completion Date: /

Signature: **Signature:**

Head of Department: Assist. Prof. Dr. Layla Abdulhamid Said **Assistant dean for Academic Affairs:** Prof. Dr. Hussain A.M. Daood

Date: **Date:**

The Program was authorized by

Department of Quality Assurance and University Performance.

Head of Department of Quality Assurance and University Performance:

Date:

Signature: Mays Mothana Mustafa

Approval of the Dean

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

Academic and Course Description Guide

Department of Medical Laboratory Technologies

2026-2025

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 extracurricular activities to achieve the learning outcomes of the program.

1. Program Vision

To equip graduates with the skills to perform their work in pathological analysis laboratories, make optimal use of laboratory equipment, and gain knowledge of laboratory management.

2. Program Message

Providing graduates with the necessary scientific skills that enable them to apply what they have learned in medical laboratories.

3. Program Objectives

1- Qualifying the department's students to be familiar with the theoretical and practical aspects of a number of basic sciences such as microbiology, biochemistry, clinical chemistry, physiology, pathological tissues, blood, and other sciences, in addition to the ability to deal with modern technologies used in the field of medical laboratories.
2- Working to develop a distinguished personality for the student by developing cultural and social awareness that qualifies him after graduation to contribute effectively to serving his community.
3- Working to create a suitable scientific environment for preparing highly specialized cadres (Masters and PhD) while developing their capabilities in the field of research in a way that contributes to providing an information base on the nature of diseases and their causes in the local community.
4- Researching modern topics and defining problems that require more in-depth scientific research.

4. Program Accreditation

In progress and preparation

5. Other external influences

Ministry of Higher Education and Scientific Research - Middle Technical University -College of Medical and Health Technologies - Department of Medical Laboratory Technologies.

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	-	-	-	-
College Requirements	-	-	-	-
Department Requirements	**48**	**169**	**89%**	Courses for four years, study pattern: semester
Summer Training	**-**	**8**	**5%**	2 hours/week for 4 weeks for the second and third years
other	-	-	-	-

7. Program Description

Year/ Level	Course Code	Course Name	Credit Hours				
			Theoretical	Teaching methods	Practical	Teaching methods	Number of units
First Year/ First Semester	**SMGC1101**	General chemistry 1	2	Lectures	5	application	4
	SMMT1102	Medical terminology	2	Lectures	-	-	2
	SMHB1103	Human biology 1	2	Lectures	5	application	4
	SM LI1104	Laboratory instruments 1	2	Lectures	4	application	4
	SMME1105	Medical ethics	2	Lectures	-		2
	SMCA1106	Computer Applications 1	1	Lectures	2	application	2
	SMHRD1107	Human rights and Democracy	2	Lectures	-	-	2
	SMEL1108	English language	2	Lectures	-	-	2
	SMAL1109	Arabic Language	2	Lectures	-	-	2
		Total	17		16		24
First Year/ Second Semester	**SMGC1201**	General chemistry 2	2	Lectures	5	application	4
	SMA1202	Anatomy	2	Lectures	5	application	4
	SMHB1203	Human biology 2	2	Lectures	5	application	4
	SM LI1204	Laboratory instruments 2	2	Lectures	4	application	4
	SMAL1205	Arabic language	2	Lectures	-	-	2
		Total	10		19		18
Second Year/ First Semester	**SMMBC2101**	Medical Bacteriology 1	2	Lectures	4	application	4
	SMBC2102	Biochemistry 1	2	Lectures	4	application	4
	SMHPH2103	Human physiology 1	2	Lectures	4	application	4
	SMH2104	Histology 1	2	Lectures	4	application	4
	SMDB2105	Descriptive Biostatics	1	Lectures	2	application	2

	SMMP2106	Medical Parasitology 1	2	Lectures	4	application	4
	SMCBRI2107	The crimes of the Baath regime in Iraq	2	Lectures	-	-	2
	SMCOM2108	Computer Applications	1	Lectures	2	application	2
	SMAL2109	Arabic language	2	Lectures	-		2
		Total	16		24		28
Second Year/ Second Semester	**SMMBC2201**	Medical Bacteriology 2	2	Lectures	4	application	4
	SMBC2202	Biochemistry 2	2	Lectures	4	application	4
	SMHPH2203	Human physiology 2	2	Lectures	4	application	4
	SMH2204	Histology 2	2	Lectures	4	application	4
	SMMP2205	Medical Parasitology & Entomology 2	2	Lectures	4	application	4
	SMMB2206	Molecular Biology	2	Lectures	4	application	4
	SMA2207	Arabic language	2	Lectures	-	-	2
	SMTR2208	Summer training	-	-	2	application	Fulfilled
		Total	14		24		26
Third Year/ First Semester	**SMHPH3101**	Histopathology 1	2	Lectures	2	application	3
	SMHEM3102	Haematology 1	2	Lectures	2	application	3
	SMMV3103	Medical Virology	2	Lectures	4	application	4
	SMCE3104	Clinical Endocrinology	2	Lectures	4	application	4
	SMHGE3105	Medical Genetics1	2	Lectures	4	application	4
	SMIMU3106	Immunology 1	2	Lectures	4	application	4
	SMALT3107	Advanced Laboratory Techniques	2	Lectures	2	application	3
		Total	14		22		25
Third Year/ Second Semester	**SMHPH3201**	Histopathology 2	2	Lectures	2	application	3
	SMHEM3202	Haematology 2	2	Lectures	2	application	3
	SMMM3203	Medical Mycology	2	Lectures	4	application	4
	SMMD3204	Metabolic Disorders	2	Lectures	4	application	4
	SMHGE3205	Medical Genetics2	2	Lectures	4	application	4
	SMIMU3206	Immunology 2	2	Lectures	4	application	4
	SMABS3207	Analytical Biostatistics	1	Lectures	3	application	2
	SMSTR3208	Summer Training	-	-	2	application	Fulfilled
		Total	13		23		24
Fourth Year/ First Semester	**SMCIM4101**	Clinical Immunology 1	2	Lectures	4	application	4
	SMDIB4102	Diagnostic Bacteriology 1	2	Lectures	4	application	4
	SMCEN4103	Clinical	2	Lectures	4	application	4

		Enzymology					
	SMDPA4104	Diagnostic Parasitology 1	2	Lectures	4	application	4
	SMBTR4105	Blood Transfusion	2	Lectures	4	application	4
	SMPA4106	Pathology	2	Lectures	4	application	4
	SMPRA4107	Professional Ethics	2	Lectures	-	-	2
	SMRM4108	Research Methods	1	Lectures	-	-	1
		Total	15		24		27
Fourth Year/ second Semester	**SMCIM4201**	Clinical Immunology 2	2	Lectures	4	application	4
	SMDIB4202	Diagnostic Bacteriology 2	2	Lectures	4	application	4
	SMSCE4203	Stem cell & Embryology	2	Lectures	4	application	2
	SMDPA4204	Diagnostic Parasitology 2	2	Lectures	4	application	4
	SMCC4205	Clinical Chemistry	2	Lectures	4	application	4
	SMARIC4206	Antibiotic Resistance & Infection Control	2	Lectures	4	application	4
	SMLM4207	Laboratory Management	1	Lectures	-		1
	SMGP4208	Graduation Project	-	-	6	application	4
		Total	13		26		27

8. Expected learning outcomes of the program

Knowledge

Cognitive outcomes	**A-1** Understands the theoretical foundations of microbiology, clinical chemistry, hematology, immunology, and parasitology. **A-2** Distinguishes between various laboratory testing techniques and their diagnostic objectives. **A-3** It describes the steps and procedures for collecting and analyzing biological samples with scientific precision. **A-4** It illustrates the relationship between laboratory test results and clinical pathological conditions. **A-5** It establishes quality and performance control standards for medical laboratories. **A-6** He is familiar with methods for detecting microbes and parasites. **A-7**Explains the scientific principles of chemical, pathological, and hematological analyses.

Skills

Skill-based outcomes	**B-1** Performs analyses of blood and various body fluids with precision. **B-2** Skillfully operates laboratory analysis equipment. **B-3** Prepares slides and laboratory tests, and handles the microscope. **B-4** Standardizes laboratory solutions and chemical analysis methods. **B-5** Handles biological samples safely. **B-6** Documents laboratory results and prepares corresponding reports. **B-7** Applies safety, security, and infection control protocols, as well as patient handling procedures.

Values	
Value-based outcomes	**C-1** Adheres to professional ethics, including confidentiality, accuracy, and respect for patient privacy. **C-2** Demonstrates professional responsibility and compliance with health regulations and guidelines. **C-3** Shows respect for cultural, religious, and social diversity within the work environment. **C-4** Interacts positively within the medical team and demonstrates a spirit of cooperation. **C-5** Commits to continuous learning and self-development to keep pace with advancements in medical laboratory technologies. **C-6** Exercises professional conscience when interpreting results. **C-7** Commits to training new appointees in his/her field of work.

9. Teaching and learning strategies

1. Lectures.
2. Laboratories.
3. Research, reports, and studies.
4. Dialogue and discussion methods.

10.Evaluation methods

1. Daily exams.
2. Midterm and final exams.
3. Participation grades for discussion questions on academic topics.
4. Grades for homework assignments.

11.Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/ skills (If Applicable)		Number of teaching staff	
	General	Special			Staff	Lecturer
Professor Hussain Abdulmunaam	Zoology	Fish Biology	Assistant Dean for Scientific Affairs	-	√	-
Assistant Prof. Layla Abdulhamid	Biology	Microbiology	Head of department	-	√	-
Assistant Prof. Faris jafaar	Human doctor	Hematopathologist, Flowcytometrist	Lecturer	-	√	-
Assistant Prof.Tariq Ibrahim Youssef	Pharmacy	Medical Diagnostic Laboratory	Lecturer	-	√	-

Junior Lecturer Wathiq Qutaiba Shaker	Biology	Applied Embryology	Department Rapporteur	-	√	-
Senior Lecturer Maap Maysar Hamid	Human Doctor	Histopathology	Lecturer	-	-	√
Senior Lecturer Adnan Muhammad Ali	Cyber security	Encryption and statistics	Lecturer	-	√	-
Expert Azhar Sabry	Biology Microbiology	Microbiology Clinical chemistry	Lecturer	-	-	√
Senior Lecturer Mustafa khaleel	Biochemistry	Medical biochemistry	Lecturer	-	-	√
Senior Lecturer Hamza Bassil	Biology Techniques	Microbiology	Lecturer	-	-	√
Asst. Lecturer Ruqaya Arif Abdul-Amir	Biology	Microbiology	Lecturer	-	√	-
Senior Lecturer Thamer Abdulaziz Abdul Hamid	Political science	International Relations and Diplomatic Organization	Lecturer	-	√	-
Junior Lecturer Fatima Ali Issa	Biochemistry	Biological chemistry	Lecturer	-	√	-
Junior Lecturer Diana Muhammad Youssef	Civil engineering	Civil Engineering/Hydraulic Engineering and Irrigation	Lecturer	-	√	-
Junior Lecturer Dania Hussein Abdel Moneim	English Language	English literature, poetry	Lecturer	-	√	-
Junior Lecturer Zahraa Samer Saadi	Computer technology engineering	Software	Lecturer	-	√	-
Junior Lecturer Ansaf Jassim Alwan	Sociology	Sociology	Lecturer	-	√	-
Junior Lecturer Maan Muzal Shehab	Arabic Language	Literature	Lecturer	-	-	√

12. Professional development

Orientation of new faculty members

-Conducting interviews with prospective faculty members to assess their teaching competence.
-Professional development: Guiding new faculty members and monitoring their progress under the supervision of the department head.
-Experiencing diverse methods for student assessment and grading.

-Encouraging the publication of research and the organization of scientific courses, workshops, and lectures within the college.

Professional development of faculty members

- Professional development meetings for faculty members, including seminars and workshops.
- Self-assessment by faculty members.
- Regular follow-up by the department head with faculty members.
- Use of modern learning strategies.
- Reliance on recent research and books.
- Student evaluation of faculty members through a departmental faculty evaluation questionnaire.

13. Admission Criteria (setting regulations for admission to a college or institute)

1. The overall average for central admission/scientific branch/according to the requirements of the Ministry of Higher Education and Scientific Research.
2. A personal interview with applicants to introduce them to the curriculum in general.

14. The most important sources of information about the program

Official website of the department, college, and quality assurance and registration division

15. Program development plan

1. Encouraging student participation in lectures by assigning short research papers on the lecture topics.
2. Ensuring students are prepared for the annual assessment exam and keeping up with all changes.
3- To create a suitable academic environment for developing highly specialized faculty (Master's and PhD degrees) and enhancing their research capabilities, thereby contributing to a comprehensive database on the nature and causes of diseases in the local community.
4- To establish an advisory board for the department, comprising the supervising professors and student representatives from all levels.
5- Striving to integrate students into research activities and encouraging them to use graduation projects to develop laboratory work tools or conduct field studies.

Curriculum skills chart

Please tick the boxes corresponding to the individual learning outcomes of the programmed being assessed.

				Required learning outcomes of the program																			
Year/ level	Course Code	Course Name	Basic or optional	Knowledge							Skills							Values						
				A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	C5	C6	C7
First Year/ First Semester	SMGC1101	General chemistry 1	Essential	√			√		√	√				√							√	√	√	√
	SMMT1102	Medical terminology	Essential			√										√		√				√	√	√
	SMHB1103	Human biology 1	Essential										√									√	√	√
	SM LI1104	Laboratory instruments 1	Essential		√				√	√	√	√				√	√					√	√	√
	SMME1105	Medical ethics	optional					√									√	√	√	√	√	√	√	√
	SMCA1106	Computer Applications	optional													√						√	√	√
	SMHRD1107	Human rights and Democracy	optional					√									√	√	√	√		√	√	√
	SMEL1108	English language	optional																			√	√	√
	SMAL1109	Arabic languege	optional																			√	√	√
First Year/ Second Semester	SMGC1201	General chemistry 2	Essential	√					√	√				√							√	√	√	√
	SMA1202	Anatomy	Essential										√			√					√	√	√	√
	SMHB1203	Human biology 2	Essential										√									√	√	√
	SM LI1204	Laboratory instruments 2	Essential		√				√	√	√	√	√				√					√	√	√
	SMGC1205	Arabic language	optional																			√	√	√
	SMMBC2101	Medical Bacteriology 1	Essential	√		√		√	√		√			√	√						√	√	√	√

Second Year/ First Semester	**SMBC2102**	**Biochemistry 1**	**Essential**	√		√			√	√	√										√	√	√	√
	SMHPH2103	**Human physiology 1**	**Essential**			√	√		√	√	√	√			√	√					√	√	√	√
	SMH2104	**Histology 1**	**optional**				√		√				√									√	√	√
	SMDB2105	**Descriptive Biostatics**	**Essential**													√						√	√	√
	SMMP2106	**Medical Parasitology 1**	**Essential**	√				√			√		√		√		√					√	√	√
	SMCBRI2107	**The crimes of the Baath regime in Iraq**	**optional**																			√		√
	SMCOM2108	**Computer Applications**	**optional**													√						√	√	√
	SMAL2109	**Arabic language**	**optional**																			√	√	√
Second Year/ Second Semester	**SMMBC2201**	**Medical Bacteriology 2**	**Essential**	√		√		√	√		√				√	√					√	√	√	√
	SMBC2202	**Biochemistry 2**	**Essential**	√		√			√	√			√			√					√	√	√	√
	SMHPH2203	**Human physiology 2**	**Essential**			√	√		√	√	√				√	√					√	√	√	√
	SMH2204	**Histology 2**	**Essential**				√						√			√						√	√	√
	SMMP2205	**Medical Parasitology & Entomology 2**	**Essential**	√							√				√		√					√	√	√
	SMMB2206	**Molecular Biology**	**Essential**	√	√	√					√	√	√				√					√	√	√
	SMA2207	**Arabic language**	**optional**																			√	√	√
Third Year/ First Semester	**SMHPH3101**	**Histopathology 1**	**Essential**				√						√									√	√	√
	SMHEM3102	**Haematology 1**	**Essential**	√	√	√	√			√	√		√		√						√	√	√	√
	SMMV3103	**Medical Virology**	**Essential**	√				√									√					√	√	√
	SMCE3104	**Clinical Endocrinology**	**Essential**	√	√	√	√			√	√			√		√						√	√	√

	SMHGE3105	Medical Genetics 1	Essential				√													√		√	√	√
	SMIMU3106	Immunology 1	Essential	√		√		√		√	√				√		√					√	√	√
	SMALT3107	Advanced Laboratory Techniques	Essential	√	√	√		√		√	√	√	√		√	√	√				√	√	√	√
Third Year/ Second Semester	SMHPH3201	Histopathology 2	Essential				√						√									√	√	√
	SMHEM3202	Haematology 2	Essential	√	√	√	√			√	√				√							√	√	√
	SMMM3203	Medical Mycology	Essential	√											√		√				√	√	√	√
	SMMD3204	Metabolic Disorders	Essential	√	√		√			√	√		√	√							√	√	√	√
	SMHGE3205	Medical Genetics 2	Essential				√									√				√		√	√	√
	SMIMU3206	Immunology 2	Essential	√				√		√	√				√		√					√	√	√
	SMABS3207	Analytical Biostatistics	optional													√						√	√	√
Fourth Year/ First Semester	SMCIM4101	Clinical Immunology 1	Essential	√	√	√	√			√							√					√	√	√
	SMDIB4102	Diagnostic Bacteriology 1	Essential	√		√		√		√			√			√	√				√	√	√	√
	SMCEN4103	Clinical Enzymology	Essential	√		√	√			√	√			√			√					√	√	√
	SMDPA4104	Diagnostic Parasitology 1	Essential	√				√					√		√	√	√				√	√	√	√
	SMBTR4105	Blood Transfusion	Essential			√		√	√		√				√		√				√	√	√	√
	SMPA4106	Pathology	Essential				√						√				√					√	√	√
	SMPRA4107	Professional Ethics	Essential													√	√	√	√	√	√	√	√	√
	SMRM4108	Research Methods	Essential	√	√	√					√	√				√		√			√	√	√	√
Fourth	SMCIM4201	Clinical Immunology 2	Essential	√		√	√								√		√					√	√	√

Year/ Second Semester	**SMDIB4202**	**Diagnostic Bacteriology 2**	**Essential**	√		√		√	√		√				√	√	√					√	√	√
	SMSCE4203	**Stem cell & Embryology**	**Essential**								√				√	√						√	√	√
	SMDPA4204	**Diagnostic Parasitology 2**	**Essential**					√					√		√	√	√					√	√	√
	SMCC4205	**Clinical Chemistry**	**Essential**	√	√	√	√				√			√							√	√	√	√
	SMARIC4206	**Antibiotic Resistance & Infection Control**	**Essential**				√	√	√		√		√		√	√	√					√	√	√
	SMLM4207	**Laboratory Management**	**Essential**		√			√				√			√	√	√	√	√		√	√	√	√
	SMGP4208	**Graduation Project**	**Essential**		√	√		√				√			√	√	√	√			√	√	√	√