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

2025-2024

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 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

5. Other external influences

Ministry of Higher Education and Scientific Research - Middle Technical University.

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	-	-	-	-
College Requirements	-	-	-	-
Department Requirements	**56**	**200**	**89%**	Courses for four years, study pattern: annual and semester
Summer Training	–	**8**	**5%**	2hours/week for 4 weeks for the second and third years
other	-	-	-	-

7. Program Description

Year/ Level	Course Code	Course Name	Credit Hours			
			Theoretical	Practical	total	Number of units
First Year/ First Semester	SMGC010301	General chemistry 1	2	5	7	4
	SMMT0107	Medical terminology	2	-	2	2
	SMHB010601	Human biology 1	2	5	7	4
	SM LI010101	Laboratory instruments 1	2	4	6	4
	SMME010201	Medical ethics	2	-	2	2
	SMCA010801	Computer Applications 1	1	2	3	2
	SMHRD0105	Human rights and Democracy	2	-	2	2
	SMEL0104	English language	2	-	2	3
		Total	15	16	31	23
First Year/ Second Semester	SMGC010302	General chemistry 2	2	5	7	4
	SMA0102	Anatomy	2	5	7	4
	SMHB010502	Human biology 2	2	5	7	4
	SM LI010102	Laboratory instruments 2	2	4	6	4
	SMCA010602	Computer Applications 2	1	2	3	2
	SMAL0104	Arabic language	2	-	2	2
		Total	11	21	32	20
Second Year/ First Semester	SMMBC020101	Medical Bacteriology 1	2	4	6	4
	SMBC020201	Biochemistry 1	2	4	6	4
	SMHPH020301	Human physiology 1	2	4	6	4
	SMH020401	Histology 1	2	4	6	4

	SMMOL0205	Molecular Biology	2	4	6	4
	SMMP020601	Medical Parasitology 1	2	4	6	4
	SMCRIM0207	جرائم نظام البعث في العراق	2	-	2	2
	SMCOMP0208	Computer Applications	1	2	3	2
		Total	15	26	41	28
Second Year/ Second Semester	SMMBC020602	Medical Bacteriology 2	2	4	6	4
	SMBC020302	Biochemistry 2	2	4	6	4
	SMHPH020702	Human physiology 2	2	4	6	4
	SMH020502	Histology 2	2	4	6	4
	SMMP020202	Medical Parasitology & Entomology 2	2	4	6	4
	SMMB0201	Descriptive Biostatics	1	2	3	2
	SMA0204	Arabic language	2	-	2	2
	SMTR0208	Summer training	-	-	-	Fulfilled
		Total	13	22	35	24
Third Year/ First Semester	SMHPH030101	Histopathology 1	2	2	4	3
	SMHEM030201	Haematology 1	2	2	4	3
	SMMYC0303	Medical Mycology	2	4	6	4
	SMMETDIS0304	Metabolic Disorders	2	4	6	4
	SMHGE030501	Medical Genetics1	2	4	6	6
	SMIMU030601	Immunology 1	2	4	6	6
	SMLABTEC0307	Advanced Laboratory Techniques	2	2	4	4
	SMAC030801	Computer Applications 1	1	2	3	2
		Total	15	24	39	27
Third Year/ Second Semester	SMHPH030402	Histopathology 2	2	2	4	3
	SMHEM030502	Haematology 2	2	2	4	3
	SMMVIR0307	Medical Virology	2	4	6	4
	SMEND0306	Clinical Endocrinology	2	4	6	4
	SMHGE030202	Medical Genetics2	2	4	6	4
	SMIMU030802	Immunology 2	2	4	6	4
	SMABS0301	Analytical Biostatistics	1	3	4	2
	SMAC030302	Computer Applications 2	1	2	3	2
	SMSTR0309	Summer Training	-	-	-	Fulfilled
		Total	14	25	39	26
Fourth Year/ Annual	SMCIMU0401	Clinical Immunology	2	4	6	8
	SMDIABAC0408	Diagnostic Bacteriology1	2	4	6	8
	SMACCH0405	Clinical Chemistry	2	4	6	8
	SMMPAR0404	Medical Parasitology	2	4	6	8
	SMBBAC04010	Blood Transfusion	2	4	6	8

	SMHPH0409	Histopathology	1	3	4	5
	SMGRES0407	Graduation Project	-	5	5	4
	SMENG0406	English language	1	-	1	2
	SMLABM0403	Laboratory Management+ Research Methods	1	-	1	2
	SMATH0402	Professional Ethics	2	-	2	2
		Total	15	28	43	55

8. Expected learning outcomes of the program

Knowledge

Required learning outcomes, teaching, learning and assessment methods	**A-1 Developing student knowledge through the use of advanced teaching methods.** **A-2 Evaluating student activities through the preparation of reports and assignments.** **A-3 Sending students for training in teaching hospitals to gain real-life experience.** **A-4 Equipping classrooms with all educational requirements.**

Skills

Learning skills	**B-1 The ability to present, discusses, and defends ideas orally, in writing, and electronically.** **B-2 The ability to understand and comprehend the English language at a technical level relevant to the field of specialization.** **B-3 The student's ability to use available means to enhance their efficiency (using the latest equipment).** **B-4 The ability to pass professional tests (problem-solving, if any).**

Values

	C-1 Working with others in a disciplined manner within a team (teamwork). **C-2 Continuity, development, and innovation.** **C-3 Adhering to ethical values.** **C-4 Encouraging the student to develop themselves after graduation.**

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			√	
Professor Zuhair Noaman	Medical bacteriology	Pharmaceutical Genetics			√	
Assistant Prof. Layla Abdulhamid	Biology	Microbiology			√	
Assistant Prof. Faris jafaar	Human doctor	Hematopathologist, Flowcytometrist			√	
Junior Lecturer Wathiq qutaiba	Biology				√	
Expert Maab muser	Human Doctor	Histopathology				√
Expert Azhar Sabry	Biology Microbiology	Microbiology Clinical chemistry				√
Expert Alyaa Abdulhussein	Biology Techniques	Microbiology				√
Senior Lecturer Mustafa khaleel	Biochemistry	Medical biochemistry				√
Expert Anwer jaber	Biology	Microbiology				√
Senior Lecturer Hamza Bassil	Biology Techniques	Microbiology				√
Expert Maha Tariq	Veterinarian	Public health				√
Senior Lecturer Haneen Akram	Biology	Immunology				√
Junior Lecturer Abdulrahman Jassim	Computer science	Computer science				√

Expert Maan Muzal	Arabic Language	Literature				√
Junior Lecturer Hani Abdulameer	Mathematic science	Pure Mathematics				√
Junior Lecturer Harith Abdulallah	Literature	English Language				√
Junior Lecturer Fatima Ali	Biochemistry	Biological chemistry			√	
Senior Lecturer Thamer Abdulaziz	Political science	International Relations and Diplomatic Organization			√	
Junior Lecturer Ansaf Jassim	Sociology	Sociology			√	

12. Professional development

-Professional development: Orienting new faculty members and monitoring achievement rates.
-Follow-up of faculty members by the department head, including training sessions.
-Professional development meetings for faculty members, seminars, and courses.
-Twinning with government colleges.
-Using modern learning strategies.
-Relying on recent research and books.

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

Central/Scientific Branch/According to the requirements of the Ministry of Higher Education and Scientific Research.

14. The most important sources of information about the program

- Highly ranked Iraqi and international public universities.
- Scientific sources accredited by the specialized sectoral authority.

15. Program development plan

Conducting seminars, courses, and twinning with government colleges.

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				General and transferable skills(or) other skills relevant to employability and personal development			
				A-1	A-2	A-3	A-4	B-1	B-2	B-3	B-4	C-1	C-2	C-3	C-4	D-1	D-2	D-3	D-4
First Year/ First Semester	SMGC010301	General chemistry 1	Basic																
	SMMT0107	Medical terminology	Basic	√	√	√	√	√	√	√	√	√	√	√	√				
	SMHB010601	Human biology 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√				
	SM LI010101	Laboratory instruments 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√				
	SMME010201	Medical ethics	optional	√	√	√	√	√	√	√	√	√	√	√	√				
	SMCA010801	Computer Applications 1	optional	√			√	√				√	√	√	√				
	SMHRD0105	Human rights and Democracy	optional	√			√	√	√	√	√	√	√	√	√				
First Year/ Second Semester	SMEL0104	English language	optional	√			√	√				√	√	√	√				
	SMGC010302	General chemistry 2	Basic	√			√	√	√			√	√	√	√				
	SMA0102	Anatomy	Basic	√	√	√	√	√	√	√	√	√	√	√	√				
	SMHB010502	Human biology 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√				
	SM LI010102	Laboratory instruments 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√				

	SMCA010602	Computer Applications 2	optional	√			√	√	√	√	√	√	√	√	√					
	SMAL0104	Arabic language	optional	√			√	√				√	√	√	√					
Second Year/ First Semester	SMMBC020101	Medical Bacteriology 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√					
	SMBC020201	Biochemistry 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√					
	SMHPH020301	Human physiology 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√					
	SMH020401	Histology 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√					
	SMMOL0205	Molecular Biology	Basic	√	√	√	√	√	√	√	√	√	√	√	√					
	SMMP020601	Medical Parasitology 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√					
	SMCRIM0207	جرائم نظام البعث في العراق	optional	√			√	√				√	√	√	√					
	SMCA0208	Computer Applications	optional	√			√	√	√	√	√	√	√	√	√					
Second Year/ Second Semester	SMMBC020602	Medical Bacteriology 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√					
	SMBC020302	Biochemistry 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√					
	SMHPH020702	Human physiology 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√					
	SMH020502	Histology 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√					
	SMMP020202	Medical Parasitology & Entomology 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√					
	SMMB0201	Descriptive Biostatics	optional	√			√	√			√	√	√	√	√					

	SMA0204	Arabic language	optional	√			√	√				√	√	√	√			
Third Year/ First Semester	SMHPH030101	Histopathology 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMHEM030201	Haematology 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMMYC0303	Medical Mycology	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMMETDIS0304	Metabolic Disorders	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMHGE030501	Medical Genetics 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMIMU030601	Immunology 1	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMLABTEC0307	Advanced Laboratory Techniques	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMCA030801	Computer Applications 1	optional	√			√	√	√	√	√	√	√	√	√			
Third Year/ Second Semester	SMHPH030402	Histopathology 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMHEM030502	Haematology 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMMVIR0307	Medical Virology	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMEND0306	Clinical Endocrinology	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMHGE030202	Medical Genetics 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMIMU030802	Immunology 2	Basic	√	√	√	√	√	√	√	√	√	√	√	√			
	SMABS0301	Analytical Biostatistics	optional	√			√	√			√	√	√	√	√			

	SMCA030302	**Computer Applications 2**	**optional**	√			√	√	√	√	√	√	√	√	√				
Fourth Year/ Annual	**SMCIMU0401**	**Clinical Immunology**	**Basic**	√	√		√	√	√	√	√	√	√	√	√				
	SMDIABAC0408	**Diagnostic Bacteriology1**	**Basic**	√	√		√	√	√	√	√	√	√	√	√				
	SMACCH0405	**Clinical Chemistry**	**Basic**	√	√		√	√	√	√	√	√	√	√	√				
	SMMPAR0404	**Medical Parasitology**	**Basic**	√	√		√	√	√	√	√	√	√	√	√				
	SMBBAC04010	**Blood Transfusion**	**Basic**	√	√		√	√	√	√	√	√	√	√	√				
	SMHPH0409	**Histopathology**	**Basic**	√	√		√	√	√	√	√	√	√	√	√				
	SMGRES0407	**Graduation Project**	**Basic**	√	√		√	√	√	√	√	√	√	√	√				
	SMENG0406	**English language**	**optional**	√			√	√	√			√	√	√	√				
	SMLABM0403	**Laboratory Management+ Research Methods**	**Basic**	√	√		√	√	√	√	√	√	√	√	√				
	SMATH0402	**Professional Ethics**	**optional**	√			√	√				√	√	√	√				