

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



Academic Program and Course Description Guide

1st stage Medical Biology 2025-2026

Academic Program Description Form

University Name: University of Al-Qadisiyah

Faculty/Institute: College of medicine

Scientific Department:

Academic or Professional Program Name: General Medicine and Surgery

Final Certificate Name: Bachelor's degree in General Medicine and Surgery

Academic System: Annual year / 2 semester

Description Preparation Date: 10/9 /2025

File Completion Date: 16/9/2025

Signature:



Head of Department Name:

Prof Dr. Nael Mohammed

Signature:



Scientific Associate Name:

Prof. Dr. Mohammed Saad

The file is checked by: Prof Dr. Anwar jassib

Department of Quality Assurance and University Performance

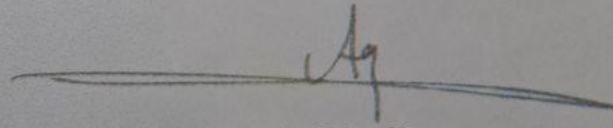
Director of the Quality Assurance and University Performance

Department:

Signature:



Approval of the Dean



1. Program Vision

Seeking to make the College of Medicine in Al-Qadisiyah University a distinguished college among the medical colleges in Iraq in the field of medical education. Additionally, to make it has a clear imprint in promoting the health field in the Iraqi community and works to provide distinctive proposals and views for basic and clinical medical sciences to ensure meeting the health needs of the community at the local and national levels..

2. Program Mission

Al Qadisiyah medical college aims at producing medical doctors that are able to participate effectively in the health care delivery system whether in Iraq or any other country
The curriculum is designed to provide students with the necessary knowledge, skills and attitudes in order to function as safe doctors and have the baseline for lifelong learning in the medical field in the future
The teaching methods are guided by learning objectives that ensure delivering basic biomedical, behavioral and social and clinical subjects which help creating an efficient junior doctor who is competent, motivated and professional.

3. Program Objectives

Graduating distinguished doctors and rehabilitating them scientifically, professionally and ethically so that they can provide health and medical care to individuals, families and society on sound scientific bases and in accordance with the noble moral, social and humanitarian values with great interest in primary health care
- Developing curricula, teaching aids and methods to improve quality based on international quality standards and academic accreditation
- Achieving accreditation through the institutional capacity standards of the college. Achieving academic accreditation standards for student and graduate programs offered by the college
Continuous support for distinguished cadres of faculty members through an academic environment that encourages production and creativity
Continuous development of the scientific research system to identify and diagnose major health problems in the community, propose appropriate scientific solutions to them, and keep pace with development in basic and clinical medical sciences.

4. Program Accreditation

An application has been made for national accreditation for medical colleges

5. Other external influences

Advances in medical science and technology , requiring regular curriculum updates

6. Program Structure				
Program Structure	Number of semester	Credit hours	Percentage	Reviews*
Institution Requirements	2	Total hour in annual year semester I and II 120h (60h theory and 60h practical)		Basic
College Requirements	2	Total hour in annual year course I and II 120h (60h theory and 60h practical)		Basic
Department Requirements	2	Total hour in annual year course I and II 120h (60h theory and 60h practical)		Basic
Summer Training	Not found			
Other	Basic course			

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

7. Program Description				
Year/Level	Course Code	Course Name	Credit Hours	
1 st year	MBI 1202	Biology	theoretical	practical
			60 h for annual year semester I,II	60 h for annual year semester I,II

8. Expected learning outcomes of the program	
Knowledge	
	<p>By the end of the course, students will be able to:</p> <ol style="list-style-type: none"> 1-Understand fundamental biological concepts related to cell biology, genetics, evolution, and human biology. 2-Explain the structure and function of cells, tissues, and organ systems. 3-Apply biological principles to understand health, disease, and human physiology. 4-Describe basic mechanisms of inheritance and genetic variation. 5-Understand principles of growth, development, and reproduction.

	<p>6-Relate biological concepts to medical and clinical sciences.</p> <p>7-Develop scientific thinking and observational skills.</p> <p>8-Interpret basic biological data, diagrams, and experimental results.</p>
Skills	
	<p>- Students will be able to:</p> <p>Observe, identify, and describe biological structures at cellular, tissue, and organ levels.</p> <p>Use basic laboratory techniques such as microscopy, staining, and specimen handling.</p> <p>Interpret biological diagrams, charts, and experimental data.</p> <p>Apply biological concepts to understand normal and abnormal human processes.</p> <p>Analyze genetic and molecular information relevant to health and disease.</p> <p>Correlate biological principles with clinical conditions and disease mechanisms.</p> <p>Practice safe and ethical laboratory behavior.</p> <p>Develop scientific reasoning and problem-solving skills.</p>
Ethics	
	<p>1-Handle biological specimens responsibly and with respect.</p> <p>2-Maintain honesty and integrity in data collection, recording, and reporting.</p> <p>3-Respect ethical guidelines related to human and animal studies.</p> <p>4-Ensure biosafety and proper disposal of biological materials.</p> <p>5-Demonstrate professionalism and accountability in laboratory work.</p> <p>6-Understand the ethical implications of genetic and molecular research.</p> <p>7-Protect confidentiality when handling biological or genetic information.</p>

9. Teaching and Learning Strategies

- The method of lecture and the use of the smart board
 - Readings, self-learning, panel discussions.
 - Exercises and activities in the classroom.
 - Guide students to some websites to benefit from them to develop abilities.
- Ask the students a set of thinking questions during the lectures such as what, how, when and why

10. Evaluation methods

- Theory
- . Written Examination

- Oral Examination
- practical
- Small group / spot examination
- reports and activities

11. Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Assist. Prof	MBCHB	pathology			1	
Assist. Prof	MBCHB	Human anatomy			1	
lecturer	MBCHB	ENT			1	
lecturer	Vet. Medicine	embryology			1	
lecturer	BSc	histology			3	
lecturer	Vet. Medicine	Microbiology			2	
lecturer	BSc	Biology			2	
lecturer	BSC	Microbiology			1	
lecturer	BSc	Plant Bio			1	

Professional Development
Mentoring new faculty members
processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students.
Professional development of faculty members
creating or sustaining a culture of teaching excellence; advancing new initiatives in teaching and learning; and supporting individual faculty members' goals for professional development.

12. Acceptance Criterion
According to the student's central acceptance rate

13. The most important sources of information about the program

1. Basic histology, Janquira & Carneiro, 13th ed., McGraw
2. DiFiore's Atlas of Histology with Functional Correlations, Victor P. Eroschenko, 13th ed., Lippincott Williams & Wilkins, 2016.

14. Program Development Plan

1. Focusing mainly on making biology lectures more interactive by asking the fundamental questions in biology "how & why"
2. Reliance on clinical tutors; we recruit recent medical graduates for small groups in teaching lab
3. Focusing more on Sample questions: that should be posted weekly based on the learning objectives for the week for the students to study by themselves.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
1 st year	MBI 1202	Biology	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

- Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:	
Medical biology	
2. Course Code:	
MBI 1202	
3. course	
Year: 1 st year , annual year , semester I,II	
4. Description Preparation	
Date:10/9/2025	
5. Available Attendance Forms:	
Official working hours	
6. Number of Credit Hours (Total) / Number of Units (Total)	
120 h for annual year , semester I,II (60 h theory and 60 h practical) / 6unit total	
7. Course administrator's name (mention all, if more than one name)	
Name: mohammed saeed Email:	
8. Course Objectives	
Course Objectives	<ol style="list-style-type: none"> 1. Understanding the concept of cell biology. 2. Studying the features of animal cells. 3. Defining the basic animal tissues. 4. Introducing the classification of lower organisms.
9. Teaching and Learning Strategies	
Strategy	<ul style="list-style-type: none"> • Manage the lecture in a way that feels the importance of time. • The method of lecture and the use of the smart board • Readings, self-learning, discussion panels. • Exercises and activities in the classroom. • Guiding students to some websites to benefit from them to develop capabilities. • Asking students, a set of thinking questions during the lectures such as what, how, when and why for specific topics • Sudden daily and weekly continuous tests. • Allocate a percentage of the class for group activities.
10. Course Evaluation	
<p>The method of lecture and the use of the smart board Readings, self-learning, panel discussions. Exercises and activities in the classroom. - Guide students to some websites to benefit from them to develop abilities. Ask the students a set of thinking questions during the lectures such as what, how, when and why</p>	
11. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Basic histology, Janquira & Carneiro, 13th ed., McGraw
Main references (sources)	Histology: a text and atlas with correlated cell and molecular biology
Recommended books and references (scientific journals, reports...)	http://www.biology.arizona.edu/cell_bio/cell_bio.html https://www.cellsalive.com/
Electronic References, Websites	http://www.histologyguide.com/slidebox/slidebox.html

10. Course Structure		1st course contents			
Assessment	Educational methods	subjects	Outcome	hours	week
General questions & discussion	theory	Introduction & biochemistry of the cell	Study of basic body tissues	2	1
General questions & discussion and quiz	theory	Prokaryotic cell	Definition, structure, function & medical application	2	2
General questions & discussion and quiz	theory	(Eukaryotic cell) Plasma membrane	Definition, structure, function & medical application	2	3
General questions & discussion	theory	Cell organelle Endoplasmic reticulum,	Defination, structure, function&medical application	2	4
General questions &	Theory	Golgi apparatus and lysosomes	Defination, structure, function&medical application	2	5
General questions & discussion	theory	Ribosomes, peroxisomes& Proteasomes -		2	6
General questions & discussion	theory	Mitochondria - -Oxidative phosphorylation -Nucleus -	Definition & shape-structure -Nucleolus, chromatin, nuclear matrix & function	2	7
General questions & discussion	theory	Cytoskeleton Microtubules, intermediate filaments Microfilaments,	Structure & function of each one.-medical application PBL	2	8
General questions & quiz	theory	Cell junction & cell' inclusions	Definition, structure, function -medical application - Mitosis & meiosis -Cell cycle -Type of reproduction	2	9
Exam					10
General questions & discussion	theory	Introduction in Genetic& Mendel's inheritance	Definition, structure, function	2	11
General questions & discussion	theory	Sex linkage & Sex determination X-linked Dominant pattern of inheritance X-linked Recessive pattern of inheritance	Pattern of genetic disease	2	12

		-y-chromosome-linked single -Sex influenced-traits -Sex limited-traits			
General questions & discussion	theory	Extensions and Exceptions to Mendel's laws & pedigree -In complete dominance -co dominant -Gene interaction -Variable expressivity and incomplete Penetrance -Lethal gene -Pleiotropy -Polygenic inheritance -Autosomal Dominant	Pattern of genetic disease	2	13
General questions & discussion	theory	Mutation -structure of human chromosome -types of structural aberration -gene mutation PBL	Definition and pathophysiology of mutation	2	14
		-Chromosome -Classification of chromosome -Polyploidy -Aneuploidy in autosome -Sex chromosome aneuploidy EBM	Definition and abnormalities	2	15

Practical Biology I / First semester : 30 hrs Practical

(2 hrs/week)

- 1- Introduction and Principles of biology
- 2- cell ultrastructure
- 3- cell ultrastructure
- 4- cell ultrastructure
- 5- PBL (case scenario)**
- 6- cell ultrastructure
- 7- cell ultrastructure.
- 8- cell ultrastructure
- 9- cell ultrastructure
- 10-PBL (case: scenario)**
- 11- Genetics
- 12- Genetics
- 11- EBM**

2 nd semester contents					
Assessment	Educational method	Subject	Outcome	hour	Week
General questions & discussion	theory	Epithelial Tissue	Types , characteristic features	2	1
General questions & discussion and quiz	theory	Epithelium tissue types	Types , characteristic features	2	2
General questions & discussion	theory	Glandular epithelium	Types , characteristic features	2	3
General questions &	theory	Connective tissue types,	Types , characteristic features	2	4
General questions & discussion	theory	Adipose tissue	Types , characteristic features	2	5
General questions & discussion	theory	Cartilage,	Types , characteristic features	2	6
General questions & discussion	theory	Development of cartilage	Types , characteristic features	2	7
General questions & discussion quiz	theory	Bone	Types , characteristic features	2	8
General questions & discussion	theory	Bone marrow - PBL	Types , characteristic features	2	9
General questions d	theory	Bone development	Types , characteristic features	2	10
General questions & discussion	theory	Muscular tissue I	Types , characteristic features	2	11
General questions & discussion	theory	Muscular tissue II	Types , characteristic features	2	12
General questions & discussion	theory	General Nervous tissue	Types , characteristic features	2	13
General questions & discussion	theory	Nervous structure of brain and spinal cord- PBL	Types , characteristic features	2	14
exam					15

Practical Biology II/ Second semester : 30 hrs Practical (2 hr/week)

- 1- epithelial tissue
- 2- epithelial tissue
- 3- Glands
- 4- **PBL (case scenario)**
- 5- conn. Tissue types
- 6- conn. Tissue adipose tissue
- 7- conn. Tissue cartilage
- 8- conn. Tissue bones
- 9- **PBL(case scenario)**
- 10-muscles
- 11-muscular tissue.
- 12-nervous tissue
- 13- **PBL (case scenario)**

Examinations description:

Examination	Description
1-Continuous progress test (CPT)	oral examination / spot diagnosis , quizzes , PBL ,Short answered questions, and skills assessment , log book activity , Case report ,homework activity
2- Mid theory exam for each semester	Short answered questions, M.C.Qs. and case presentation with short answer and matching according bloom and blue print
3- Half year theory exam	M.C.Qs. as case sinario or direct question , according bloom and blue print
4-Final year theory exam	M.C.Qs. as case sinario or direct question , according bloom and blue print
5- Final Practical exam for semester I,II	Spot slide diagnosis , prescription writing, M.C.Q , according bloom and blue print

The minimum passing grades (Faculty bylaws) is 50 marks.

Re-sit Examinations :- Students who fail in a in the annual year assessment will be required to re-sit (second sitting) the Final examination (theory and practical exam) .