

**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**

**3<sup>rd</sup> stage Pharmacology 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

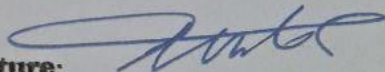
**Final Certificate Name:** Bachelor's degree in General Medicine and Surgery

**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:**


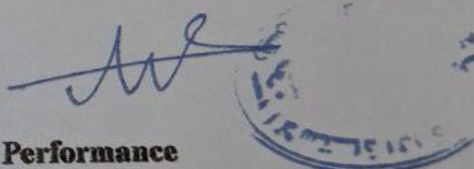


**Scientific Associate Name:**

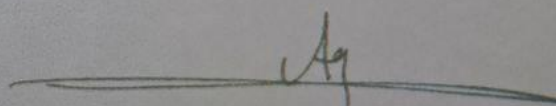
Prof. Dr. Sinaa Abd almece

**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.  
It is a well-established strategy that students are heard and welcomed to provide feedback about different aspects of the learning process and they are considered as an essential part in the decision making in the college used for continuous planning for improvement of the whole institution.

### 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  
θ 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 150 h ( 90 h theory and 60 h practical)		Basic
College Requirements	2	Total hour in annual year semester I and II 150 h ( 90 h theory and 60 h practical)		Basic
Department Requirements	2	Total hour in annual year semester I and II 150 h ( 90 h theory and 60 h 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	
3rd year	PHA 3202	Pharmacology	Theoretical	Practical
			90 h for annual year semester I,II	60 h for annual year semester I,II

8. Expected learning outcomes of the program	
<b>Knowledge</b>	
	<p>a- Knowledge and understanding:</p> <p>By the end of the course, students should be able to:</p> <ol style="list-style-type: none"> <li>1- Describe the pharmacokinetic, pharmacodynamic and pharmacotherapeutic properties of different groups of drugs affecting body systems.</li> <li>2- Describe the adverse and toxic effects, and their management of commonly used groups of drugs.</li> <li>3- Define the limitations to the use of drugs such as contraindications and drug interactions.</li> <li>4- Explain clinically relevant age, sex and genetic related variations that affect response to drugs.</li> </ol>

	<p>5- Describe the pathophysiology of diseases and explain the rational basis for the use of drugs.</p> <p>6- Explain the impact of preventive pharmacology in promoting health and prevent illness.</p> <p>7- Describe the use of life saving drugs.</p> <p>8- Define the principles and applications of gene therapy.</p> <p>9- Recognize the rational and general guidelines of the use of drugs in the proper dose in special population such as pediatrics, geriatrics, pregnancy and lactation and in cases of liver and kidney impairment.</p> <p>10- Define the basis of pharmaco-economics.</p>
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### Skills

	<p>By the end of the course, students should be able to</p> <p>1- Write safe and rational prescriptions with correct dose, route, and duration.</p> <p>2-Select appropriate drugs for specific diseases and patient conditions.</p> <p>3-Identify drug-drug, drug-food, and drug-disease interactions.</p> <p>4-Choose cost-effective and evidence-based therapies.</p> <p>5-Follow Good Clinical Practice (GCP) guidelines.</p> <p>6-Prescribe drugs rationally, based on clinical need and evidence.</p> <p>7-Avoid overprescribing, under-prescribing, and polypharmacy.</p>
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### Ethics

	<p>1-Consider patient safety, cost-effectiveness, and accessibility.</p> <p>2- Adopt the principles of lifelong learning needed for continuous professional development.</p> <p>3- Obtain informed consent when using new, off-label, or high-risk drugs.</p> <p>4-Ensure patient understanding of drug benefits and risks.</p> <p>5-Handle drugs, chemicals, and laboratory equipment safely.</p> <p>6-Educate patients on medication safety and lifestyle modifications.</p> <p>7-Counsel patients on correct drug use, compliance, and side effects.</p>
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## 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 (involved within activity in PBL)

##### - practical

- Small group examination

- Reports and activities (SBL, PBL, seminar, EBM, skills and lab lectures)

#### 11. Faculty

##### Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Prof	MB.Ch.B	pharmacology			1	
Prof	MB.Ch.B	pharmacology			1	
Prof	MB.Ch.B	pharmacology and therapeutics			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- Principle lectures notes and power points presentations provided by staff members of Pharmacology

Department.

2- Recommended books:

a- "Lippincott's Illustrated Reviews – Pharmacology", editors Harvey R.A. and Champ R.C.

b- "Pharmacology", editors Rang P.A.; et al.

14. Program Development Plan

1. Focusing mainly on making pharmacology lectures more interactive by asking the fundamental questions in pharmacology "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
3 <sup>rd</sup> year	PHA 3202	Pharmacology	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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

### Course Description Form

1. Course Name:	
Pharmacology	
2. Course Code:	
PHA 3202	
3. Course	
3 <sup>rd</sup> stage annual year / 2 semester	
4. Description Preparation	
Date:10/9/2025	
5. Available Attendance Forms:	
Official working hours	
6. Number of Credit Hours (Total) / Number of Units (Total)	
<b>150 h for annual year semester I,II ( 90h theory and 60 h practical ) / 8 unit for total</b>	
7. Course administrator's name (mention all, if more than one name)	
Name: Sinaa Abdul Amlr Email: sinaa.kadhim@qu.edu.iq	
8. Course Objectives	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>• <b>To provide the basic knowledge regarding the commonly used groups of drugs that affect human body systems and their implication in therapy of disease and health promotion.</b></li> <li>• <b>To enable students understanding the safe use of drugs in respect to</b></li> <li>• <b>adverse effects, contraindications and drug interactions.</b></li> <li>• <b>To ensure that students having enough skills and attitude towards selection and use of drugs on rational bases.</b></li> </ul>
9. Teaching and Learning Strategies	
<b>Strategy</b>	<ul style="list-style-type: none"> <li>• <b>Manage the lecture in a way that feels the importance of time.</b></li> <li>• <b>The method of lecture and the use of the smart board</b></li> <li>• <b>Readings, self-learning, discussion panels.</b></li> <li>• <b>Exercises and activities in the classroom.</b></li> <li>• <b>Guiding students to some websites to benefit from them to develop capabilities.</b></li> <li>• <b>Asking students a set of thinking questions during the lectures such as what, how, when and why for specific topics</b></li> <li>• <b>Sudden daily and weekly continuous tests.</b></li> <li>• <b>Allocate a percentage of the class for group activities.</b></li> </ul>
10. Course Evaluation	
<b>The method of lecture and the use of the smart board</b> <b>Readings, self-learning, panel discussions.</b> <b>Exercises and activities in the classroom.</b> <b>- Guide students to some websites to benefit from them to develop abilities.</b> <b>Ask the students a set of thinking questions during the lectures such as what, how, when and why</b>	
11. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	<b>Principle lectures notes and power points presentations provided by staff members of Pharmacology department.</b>

Main references (sources)	. Recommended books: a- "Lippincott's Illustrated Reviews Pharmacology", editors Harvey R.A. and Champ R.C. b- "Pharmacology", editors Rang P.A.; et al.
Recommended books and references (scientific journals, reports...)	<a href="http://www.bnf.org">www.bnf.org</a>
Electronic References, Websites	<a href="http://www.nice.org.uk">www.nice.org.uk</a> , PubMed

10. Course Structure		1st semester contents			
Assessment	Educational methods	subjects	Outcome	hours	Week
General questions & discussion	theory	General pharmacology  Pharmacokinetic	Defined , explain importance dg therapy ,absorption, dg distribution pattern , metabolism, excretion , route of administration , dg dose calculation in adult and children	3	1
General questions & discussion and quiz	theory	General pharmacology  pharmacodynamics	Defined , explain the receptor types, location and function, important of biological variation , age, wt, sex , route of administration on dg dose calculation	3	2
General questions & discussion and quiz	theory	A.N.S  Cholinergic system	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	3
General questions & discussion	theory	A.N.S adrenergic system	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	4
General questions &	Theory	CNS Central nervous system Pharmacology	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	5
General questions & discussion	theory	Central nervous system	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	6
General questions & discussion	theory	Central nervous system Pharmacology	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	7
General questions & discussion	theory	Central nervous system Pharmacology	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	8
General questions & discussion	theory	Cvs	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	9
General questions & discussion	theory	CVS	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	10
General questions & discussion	theory	Cvs	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	11
General questions & discussion	theory	- respiratory system	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	12

General questions & discussion	theory	Histamine and antihistamines	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	13
General questions & discussion	theory	Complementary medicine 9theory in practical lab)	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	14
			Review	3	15

### Practical pharmacology / First semester : 30 hrs Practical

#### **(2 hrs/week)**

- 1- Definitions and nomenclature
- 2- Drug Dosage forms
- 3- Routes of drug administration
- 4- Prescription writings
- 5- Triple response
- 6- Variation in response to a fixed dose of drugs
- 7- PBL (autonomic nervous system : case scenario)
- 8- PBL (general pharmacology, CNS and cardiovascular system scenario)
- 9- Skills by the students
- 10-SBL

## 2nd semester contents

١١. بنية المقرر الكورس الثاني

Assessment	Educational method	Subject	Outcome	Hours	Week
General questions & discussion	Theory	Endocrine system Insuline and oral hypoglycemic drugs	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	1
General questions & discussion and quiz	Theory	Endocrine system Antithyroid	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	2
General questions & discussion	Theory	Endocrine system sex hormones	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	3
General questions &	Theory	Endocrine system adrenocorticosteroids	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	4
General questions & discussion	Theory	GIT:antipeptic ulcer drugs	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	5
General questions & discussion	Theory	GIT Irritable bowel syndrome	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	6
General questions & discussion	Theory	GIT Antidiarial drugs	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	7
General questions & discussion	Theory	GIT anti emetics and laxatives	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	8
General questions & discussion <sup>5</sup>	Theory	Anticancers	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	9
General questions d	Theory	Clinical pharmacology NSAIDs and antigout	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	10
General questions & discussion	Theory	antimicrobials Penicellins and cephalosporines	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	11
General questions & discussion	Theory	antimicrobials Tetrycyclines and other antibacterial like macrolides	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	12
General	theory	Antimicrobials	Defined , explain importance dg therapy	3	13

questions & discussion		Antiprotozoal and antifungal	,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug		
General questions & discussion	Theory	antimicrobials Antiviral and anti TB	Defined , explain importance dg therapy ,kinetics and dynamic pattern , clinical uses, adverse effect and contraindications of drug	3	14
Exam	Theory	Examination	Examination	3	15

### Practical pharmacology / Second semester : 30 hrs Practical

#### (2 hr/week)

##### **1- Lab lectures**

- Stages of general anesthesia
- Dose dilution
- Pregnancy categories
- Tobacco smoking

##### **2- PBL ( case scenario)**

- GIT
- Anti diabetics
- Antimicrobials
- Histamine antihistamine
- Corticosteroid
- Gout and NSAIDs

##### **3- Seminar presentation by the students /weekly**

##### **4- EBM**

### 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 and practical exam for each semester	Short answered questions, M.C.Qs. and case presentation with short answer, matching according bloom and blue print
3- Half year theory exam	M.C.Qs. as case scenario 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	Spot slide diagnosis , M.C.Q , prescription writing, according bloom and blue print

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

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