

**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**

**2<sup>nd</sup> stage Computer 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

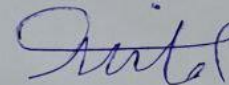
**Signature:**



**Head of Department Name:**

**Prof Dr. Nael Mohammed**

**Signature:**



**Scientific Associate Name:**

**Prof. Dr. Nael Mohammed**

**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

The vision of teaching computer science in medical colleges is to provide students with the knowledge and technical skills necessary to use modern technology to improve the quality of health care. This education aims to prepare doctors capable of integrating advanced computer tools and software into their medical practices, which facilitates diagnosis and treatment and enhances the efficiency of health services.

### 2. Program Mission

Enhancing technical understanding and enabling students to understand how computers are used in various aspects of medicine, including managing medical data, analyzing information, and using software for diagnosis and treatment.

### 3. Program Objectives

It aims to introduce students to the components of computer systems and how they work, and to provide basic concepts about software used in the medical field

### 4. Program Accreditation

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 hours in annual year semester I , II 60 h (30 h theory , 30h practical )		Basic
College Requirements	2	Total hours in annual year semester I , II 60 h (30 h theory , 30h practical )		Basic
Department Requirements	2	Total hours in annual year semester I , II 60 h (30 h theory , 30h practical )		Basic
Summer Training	Not			

	<b>found</b>			
<b>Other</b>	<b>Basic course</b>			

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

7. Program Description				
Year/Level	Course Code	Course Name	Credit Hours	
2 <sup>ed</sup> year	COM 2207	Computer	theoretical	Practical
			<b>Total hours in annual year semester I , II 30 h theory</b>	<b>Total hours in annual year semester I,II 30h practical</b>

8. Expected learning outcomes of the program	
<b>Knowledge</b>	
	<p><b>Knowledge of computer concepts: Students are able to learn about the basic concepts of the computer, including system components, software, and networks.</b></p> <p><b>-Basics of artificial intelligence by gaining comprehensive knowledge about the principles of artificial intelligence, including machine learning, deep learning, and data processing.</b></p>
<b>Skills</b>	
	<p><b>- Using medical software by gaining the ability to use specialized software in managing medical data, such as electronic health record systems.</b></p> <p><b>-- Developing students' abilities to keep pace with technological development in the field of health care</b></p>
<b>Ethics</b>	
	<p><b>Strengthening the principle of lifelong learning in order to continue developing the profession</b></p>

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

10. Evaluation methods
<p><b>-Theory</b></p> <p><b>. Written Examination</b></p> <p><b>- practical</b></p>

- Small group discussion
- Written Examination

11. Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Ass. lecturer	Computers	Artificial intelligence			1	
Ass. lecturer	Computers	Information technology			1	

Professional Development
<b>Mentoring new faculty members</b>
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.
<b>Professional development of faculty members</b>
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
<ol style="list-style-type: none"> <li>1- Graham Brown ,David Watson , "Cambridge IGCSE Information and Communication Technology " 3<sup>rd</sup> Edition (2020).</li> <li>2- Alan Evans ,Kendal Martin ,Mary Anne Poatsy, "Technology in Action Complete"</li> <li>3- Ahmed Banafa, "Introduction to Artificial Intelligence(AI)", 1st Edition (2024).</li> <li>4- الدكتور عادل عبدالنور "مدخل الى عالم الذكاء الاصطناعي" ٢٠٠٥</li> <li>5- الخضر علي الخضر بحاث " اساسيات الحاسوب " ٢٠١٦</li> </ol>

14. Program Development Plan
A structured program developed plan was prepared to strengthen the medical curriculum and enhanced the overall quality of undergraduate education

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
2 <sup>nd</sup> year	COM 2207	computer	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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

### Course Description Form

<b>1. Course Name:</b>	
Computer	
<b>2. Course Code:</b>	
COM 2207	
<b>3. Semester /</b>	
2 <sup>st</sup> year , annual year , semester I,II	
<b>4. Description Preparation</b>	
Date:10/9/2025	
<b>5. Available Attendance Forms:</b>	
Official working hours	
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	
Total hours in annual year semester I, II , 60 h(30 h theory , 30h practical ) / 3 unit total	
<b>7. Course administrator's name (mention all, if more than one name)</b>	
Name: Nibras Yousif Mohammed Email: nibras.yousif@qu.edu.iq  Name: Email:	
<b>8. Course Objectives</b>	
<b>9.</b>	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>• Knowledge of basic computer concepts and programs used in the medical field</li> <li>• Use software tools to manage electronic health records</li> <li>• Evaluate the ethical issues associated with the use of technology in health care</li> </ul>
<b>10. Teaching and Learning Strategies</b>	
<b>Strategy</b>	<ul style="list-style-type: none"> <li>• Manage the lecture in a way that feels the importance of time.</li> <li>• The method of lecture and the use of the smart board</li> <li>• Readings, self-learning, discussion panels.</li> <li>• Exercises and activities in the classroom.</li> <li>• Guiding students to some websites to benefit from them to develop capabilities.</li> <li>• Asking students a set of thinking questions during the lectures such as what, how, when and why for specific topics</li> <li>• Sudden daily and weekly continuous tests.</li> <li>• Allocate a percentage of the class for group activities.</li> </ul>
<b>11. Course Evaluation</b>	
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	
<b>12. Learning and Teaching Resources</b>	
Required textbooks (curricular books, if any)	1-Graham Brown ,David Watson , "Cambridge IGCSE Information and Communication Technology " 3rd Edition (2020).

	<p>2-Alan Evans ,Kendal Martin ,Mary Anne Poatsy,"Technology in Action Complete"</p> <p>3- Ahmed Banafa,"Introduction to Artificial Intelligence(AI)",1stEdition (2024).</p> <p>4- الدكتور عادل عبدالنور "مدخل الى عالم الذكاء الاصطناعي ٢٠٠٥"</p> <p>5- الخضر علي الخضر بحاث " اساسيات الحاسوب " ٢٠١٦</p>
Main references (sources)	-
Recommended books and references (scientific journals, reports...)	-
Electronic References, Websites	-

**Course structure  
Second stage –course (1)**

<b>Course structure Second stage –course (1)</b>					
<b>Week NO.</b>				<b>Learnin g method</b>	<b>Evolution methods</b>
<b>I,II semester</b>	<b>Unite name or subject</b>	<b>Required Learning Outcomes</b>	<b>NO of hours/we ek</b>		
<b>1-4 , weeks</b>	<b>-Security and Networking</b>	<b>- Security and Networking :What is network? Types of networks Basic network components</b>	<b>(1)Theor etical Lectures and (2) practical</b>	<b>Theoreti cal Lectures and practical</b>	
	<b>Security and Networking (Cont.):</b>	<b>- Security and Networking (Cont.): Network Security Basics, Understanding network threats</b>	<b>(1)Theor etical Lectures and (2) practical</b>	<b>Theoreti cal Lectures</b>	<b>Reports , quizzes</b>

				<b>and practical</b>	
<b>5-7 week</b>	<b>- E- Commerce</b>	E- Commerce :Concepts of Electronic banking services this include online banking ,ATM and debit card service ,Phone banking , SMS banking ,electronic alert, Mobile banking -	(1)Theoretical Lectures and (2) practical	<b>Theoretical Lectures and practical</b>	<b>Reports quizzes</b>

8-10, weeks	Computer Troubleshooting	Computer Troubleshooting :Identifying and solving common hardware and software problems that computer users encounter	(1)Theoretical Lectures and (2) practical	Theoretical Lectures and practical (	Reports , quizzes
	Computer Troubleshooting (Cont.):	Computer Troubleshooting (Cont.):Basic troubleshooting techniques and tools for diagnosing and resolving issues.	(1)Theoretical Lectures and (2) practical		
11-13 , weeks	-- Introduction to AI	Introduction to AI : Definition of AI, History of AI , AI Techniques and Approaches ,Challenges and Ethical Considerations	(1)Theoretical Lectures and (2) practical	Theoretical Lectures and practical(	Reports , quizzes
	Introduction to AI (Cont.):	Introduction to AI (Cont.):Key Characteristics of AI ,Benefits of AI, Challenges and Ethical Considerations	(1)Theoretical Lectures and (2)		

			<b>practical</b>		
<b>14-16 weeks</b>					
	<b>The Role of AI in Modern Smartphones:</b>	<b>The Role of AI in Modern Smartphones: AI-Driven Mobile Technologies, Virtual Assistants ( Siri , Google Assistant, Alexa).</b>	<b>(1)Theoretical Lectures and (2) practical</b>	<b>Theoretical Lectures and practical</b>	
	<b>The Role of AI in Modern Smartphones(Cont.)</b>	The Role of AI in Modern Smartphones(Cont.) : Adaptive Learning ,Real –Time Translation Services.	<b>(1)Theoretical Lectures and (2) practical</b>	<b>Theoretical Lectures and practical</b>	<b>Reports , quizzes</b>
		-			
<b>17-20 weeks</b>	<b>- Applications and Tools of AI :</b>	Applications and Tools of AI : Overview of AI Application in Various Industries , Education and Healthcare .	<b>(1)Theoretical Lectures and (2) practical</b>	<b>Theoretical Lectures and practical</b>	

21-25 week	-- Applications and Tools of AI(Cont.)	Applications and Tools of AI(Cont.) : Transportation ,Marketing and Advertising	(1)Theoretical Lectures and (2) practical	Theoretical Lectures and practical	Reports , quizzes
	Applications and Tools of AI(Cont.)	Applications and Tools of AI(Cont.) : Finance Robotics and Automation Technologies	(1)Theoretical Lectures and (2) practical		
	AI and Society:	AI and Society: How AI affects social ,AI and international relations, AI and the future of humanity	(1)Theoretical Lectures and (2) practical	Theoretical Lectures and practical	Reports , quizzes
26-28 week	Ethical Challenges in AI	Ethical Challenges in AI :AI ethics ,privacy and surveillance ,the impact of AI on the job market	(1)Theoretical Lectures and (2) practical	Theoretical Lectures and practical	Reports , quizzes
29-30 week	The future of AI :	The future of AI : Future trends in AI, recent research and emerging technologies	(1)Theoretical Lectures and (2) practical	Theoretical Lectures and practical	Reports , quizzes

## **Practical computer I /second stage: 30 hrs Practical**

**(2 hrs/week)**

- 1- Security and Networking (What is network? Types of networks .Basic network components. Network Security Basics Understanding network threats) (2 hr. Week 1)**
- 2-E- Commerce(Concepts of Electronic banking services this include online banking ,ATM and debit card service ,Phone banking , SMS banking ,electronic alert, Mobile banking) (2 hr. Week2)**
- 3- Computer Troubleshooting (Identifying and solving common hardware and software problems that computer users encounter. Basic troubleshooting techniques and tools for diagnosing and resolving issues. ) (2 hr. Week3,4)**
- 4 - Introduction to AI \* Definition of AI, History of AI , AI Techniques and Approaches ,Challenges and Ethical Considerations ) (2 hr. Week5,6)**
- 5- AI in our Daily Lives (AI in smartphone and virtual assistants like Siri or Google Assistant (2 hr. Week 7,8)**
- 6 - Applications of AI (Education , Healthcare ,Finance) (2 hr. Week 9,10,11)**
- 7 - AI and Society(How AI affects social ,AI and international) (2 hr. Week 12)**
- 8- -Ethical Challenges in AI (AI ethics ,privacy and surveillance ,the impact of AI on the job market ) (2 hr. Week 13)**
- 9 - The future of AI,(Future trends in AI, recent research and emerging technologies ) (2 hr. Week 13)**

### Examinations description:

Examination	Description
1-Continuous progress test (CPT)	oral examination, 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 short answer and matching according bloom and blue print
3- Half year theory exam	M.C.Qs. direct question , according bloom and blue print
4-Final year theory exam	M.C.Qs. direct question , according bloom and blue print
5- Final Practical exam for semester I,II	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) .**