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

Academic Program and Course Description Guide

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 extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: Baghdad University
Faculty/Institute: AL-Kindy College of Medicine
Scientific Department: Department of Chemistry and Biochemistry
Academic or Professional Program Name: Biochemistry
Final Certificate Name: Bachelor of medicine, Bachelor of surgery
Academic System: Semester /second semester
Description Preparation Date: 2/4/2024
File Completion Date: 2/4/2024

Signature:	**Signature:** T. Alhaidar
Head of Department Name:	**Scientific Associate Name:**
Assistant Professor dr. Yasir Abbas Atea	**Professor dr. Taghreed Alhaydari**
Date:	**Date:**

The file is checked by: Dr. Asad Sameer Mohamed
Department of Quality Assurance and University Performance
Director of the Quality Assurance and University Performance Department:
Date: 28/4/2024
Signature:

Approval of the Dean
The Dean
Prof. Dr.
Mohammed Shihab Al-Edanni

1. Program Vision

To fulfill the goal of graduating excellent, safe, competent, and professional doctors at both the undergraduate and postgraduate levels who are dependable in providing health care services and leadership

2. Program Mission

To fulfill the goal of graduating excellent, safe, competent, and professional doctors at both the undergraduate and postgraduate levels who are dependable in providing health care services and leadership

3. Program Objectives

1. To produce a competent who is able to demonstrate comprehensive understanding of biochemistry as well applied disciplines.
2. To acquire skills effectively in interpreting the laboratory reports.
3. To perform relevant investigations which will help to diagnose important medical conditions.

4. Program Accreditation

The Higher Accreditation Program of Iraqi Medical Colleges, supervised by the Ministry of Higher Education and WHO

5. Other external influences

Non

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	12	129 Hours (Theory) 48 hours (Practical)		Basic
College Requirements	12	129 Hours (Theory) 48 hours (Practical)		Basic
Department Requirements				
Summer Training				
Other				

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

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
Year 1– Second semester	BCH 112	Biochemistry	30	30
Year II/ first semester Biochemistry	MET 202	Metabolism & metabolism	30	/
Year II – First Semester Biochemistry	HLS 204	Hemopoietic & Lymphatic Module(5) Hemopoietic & Lymphatic Module(0.5)	7	2
Year II – First Semester Biochemistry	MSK 205	Musculoskeletal System Module (5)	8	/

	---	Musculoskeletal System Module(0.5)			
Year II – Second Semester Biochemistry	CVS 210 ---	Cardiovascular System Module (5) Cardiovascular System Module(0.5)	4	2	
Year II – Second Semester Biochemistry	RSP 211 ---	Respiratory System Module (5) Respiratory System Module (0.3)	4	/	
Year II – Second Semester Biochemistry	ENS 302 ---	Endocrine System (5) Endocrine System (0.9)	11	4	
Year III – First Semester Biochemistry	NCS 301 ---	Neurosciences System (8) Neurosciences System (0.5)	7	/	
Year III – Second Semester Biochemistry	REP 308 ---	Reproductive System (4) Reproductive System (0.5)	8	/	
Year III – First Semester Biochemistry	INS 303 ---	Integumentary system Module (2) Integumentary system Module (0.1)	2	/	
Year II – Second Semester Biochemistry	GIT 212 ---	GIT, Liver, Biliary and Pancreas Module (6) GIT, Liver, Biliary and Pancreas Module (0.7)	7	4	

Year III – Second Semester Biochemistry 8.	REN 307	Renal System (4) Renal System (0.6)	8	4

9. Expected learning outcomes of the program	
Knowledge	
Learning Outcomes 1	A. Cognitive goals A1. To understand the molecular basis of the normal and/or abnormal functioning of an organ system starting from the basic concept of biochemistry
Skills	
Learning Outcomes 2	B1. To be oriented with new technologies and analytical techniques that have been introduced, with their impact on the practice of clinical chemistry and laboratory medicine.
Learning Outcomes 3	B2. To have skills to be more effectively in interoperating and understanding laboratory reports.
Ethics	
Learning Outcomes 4	To equip themselves for teamwork
Learning Outcomes 5	Develop communication skills and etiquette with sense of responsibility

10. Teaching and Learning Strategies
–Lectures –Small group discussion –Practical –Tutorial and discussions –Skill labs.

11. Evaluation methods

1) Written examination
2) practical assessment
3) daily activities
4) final year examination

12. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (If applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
		√			9	

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

13. Acceptance Criterion
Candidate from central admission to the Ministry of Higher Education

15	14. The most important sources of information about the program
	1-Department of Biochemistry 2-Al-kindy Medical College 3-Ministry of Higher Education and Scientific Research.

16. Program Development Plan
This involves meetings at the level of the department and college To be aware of the syllabus of other universities

Program Skills Outline

Year/Level	Course Code	Course Name	Basic or optional	Required program Learning outcomes											
				Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
Year 1– Second semester	BCH 112	Biochemistry	Basic	x	x	x	x	x	x	x	x	x	x	x	x
				x	x	x	x	x	x	x	x	x	x	x	x
Year II/ first semester	MET 202	Metabolism	Basic	x	x	x	x	x	x	x	x	x	x	x	x
	HLS 204	Hemopoietic & Lymphatic Module	Basic	x	x	x	x	x	x	x	x	x	x	x	x
	MSK 205	Musculoskeletal System Module	Basic	x	x	x	x	x	x	x	x	x	x	x	x

Year II – Second Semester	CVS 210	Cardiovascular System Module	**Basic**	x	x	x	x	x	x	x	x	x	x	x	x
	RSP 211	Respiratory System Module	**Basic**	x	x	x	x	x	x	x	x	x	x	x	x
	ENS 302	Endocrine System	**Basic**	x	x	x	x	x	x	x	x	x	x	x	x
	GIT 212	GIT, Liver, Biliary and	**Basic**	x	x	x	x	x	x	x	x	x	x	x	x

		Pancreas Module													
Year III – First Semester	NCS 301	Neurosciences System	**Basic**	x	x	x	x	x	x	x	x	x	x	x	x
	REP 308	Reproductive System	**Basic**	x	x	x	x	x	x	x	x	x	x	x	x
	INS 303	Integumentary system Module	**Basic**	x	x	x	x	x	x	x	x	x	x	x	x
	Year III – Second Semester	REN 307	**Basic**	x	x	x	x	x	x	x	x	x	x	x	x

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

Course Description Form

1. Course Name:

Chemistry and Biochemistry

2. Course Code:

BCH 112

3. Semester / Year:

Second semester / Year 1

4. Description Preparation Date:

5/ 4 / 2024

5. Available Attendance Forms:

6. Number of Credit Hours (Total) / Number of Units (Total)

62 hours / 28 hours lectures. 4 hours discussions, 30 hours practical.

7. Course administrator's name (mention all, if more than one name)

Name: Biochemistry
A.P. Dr. Tahrir Etihad Kadium
A.L.Noor Abd.Alkareem / nour.a@kmc.uobaghdad.edu.iq

Email: tahriretihad@kmc.uobaghdad.edu.iq
Email: nour.a@kmc.uobaghdad.edu.iq

8. Course Objectives

Course Objectives	a) Demonstrate knowledge and understanding of the molecular machinery of living cells. b) Demonstrate knowledge and understanding of the principles that govern the structures macromolecules like Proteins, carbohydrate, lipids, nucleic acids, Purines and pyrimidines. c) Demonstrate knowledge and understanding of the principles and basic hormonal mechanisms molecular signaling. d) Use basic laboratory skills and apparatus to obtain reproducible data from biochemical experiment e) Implement experimental protocols, and adapt them to plan and carry out simple investigations. f) Analyze, interpret, and participate in reporting to their peers on the results of their laboratory experiments. g) Participate in and report orally on team work investigations of problem-based assignments. h) Build on their knowledge and understanding in tackling more advanced and specialized courses, more widely to pursue independent, self-directed and critical learning.

9. Teaching and Learning Strategies

Strategy	•Lectures •Practical •Group Discussion

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
15	62	Knowledge,skills and values	Biochemistry	Lectures •Practical •Group Discussion	1- Written examinations 2- practical assessment 3- homework's

11. Course Evaluation

- **10%** for active participation, assignment & quizzes that delivered in class
- **5 %** for active participation, assignment & quizzes that delivered in lab
- **15%** for End - course exam.
- **70%** for the Final exam.
  - ✓ **20% practical**
  - ✓ **50% written**

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1-Vasudevan DM, Seekumari S.Vaidyanathan K. Textbook of biochemistry for medical students. Jaypee brothers Medical Publishers Ltd , New Delhi, 7th ED 2013.

	2-Champe PC, Harvey RA Lippincott Illustrative reviev in biochemistry. Lippincott Williams &Wilkins, 4th ED, 2008.
Main references (sources)	3-Vasudevan DM, Seekumari S.Vaidyanathan K. Textbook of biochemistry for medical students. Jaypee brothers Medical Publishers Ltd , New Delhi, 7th ED 2013. **Champe PC, Harvey RA Lippincott Illustrative rev biochemistry. Lippincott Williams &Wilkins, 4th ED**
Recommended books and references (scientific journals, reports...)	None
Electronic References, Websites	None

1. Course Name:
   1. Metabolism system
   2. Hematopoietic and lymphatic module
   3. Musculoskeletal system module
   4. Cardiovascular system module
   5. Respiratory system module
   6. Endocrine system module
   7. Renal system
2. Course Code:
   1. **MET 202**
   2. HLS204
   3. MSK 205
   4. CVS 210
   5. RSP 211
   6. ENS 302
   7. REN 307
8. Semester / Year:

Second/S1
Second/S2

9. Description Preparation Date:

5.4.2024

10. Available Attendance Forms:

11.Number of Credit Hours (Total) / Number of Units (Total)

49 hours lectures. 16 hours discussions, 10 hours practical. Total credit 4.2

12.Course administrator's name (mention all, if more than one name)

Metabolism module /Assist.prof.Huda Saleem / Mrs.Raghad Qasim
Hematopoietic and lymphatic module/Dr. Esraa Mohammed Abd Al-Khaleq / Lec. Shatha Zuhair
Musculoskeletal system module/Dr. Estabraq Mahmood Mahdi/ Dr. Safa Salman Mazban
Cardiovascular system module/Dr. Saad Badai Nashter/ Dr. Saba Jasem Hamdan
Respiratory system module/ Dr. Raghad Emad AL-deen Naji/ Dr. Mohammed Natiq Abbas
Endocrine system module/ Dr. Mohammed Natiq Abbas/Assist Lec. Saba Thaer Abd Al-Kareem
Renal system module / Dr.Shatha Salah/ Dr.Rajaa Muhammed Ali / Mrs.Raghad Qasim

13.Course Objectives

Course Objectives	To outline the role of the biochemical process that takes place during metabolism & to prov de understanding of the biochemical process and the biochemical mechanisms of diseases state n hemopoietic lymphatic, respiratory, digestive, cardiovascular system which will provide m od medicine with rationale basis for the diagnosis and therapy.

14.Teaching and Learning Strategies

Strategy	1. Lectures. 2. Discussions 3. Practical labs

15. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
30	75	Knowledge,skills a values	Biochemistry	Lectures •Practical •Group Discussi	4- Written examinations 5- practical assessment 6-

16.Course Evaluation

17.Learning and Teaching Resources

Required textbooks (curricular books, if a Main references (sources)	❖ Champe PC, Harvey RA Lippincott Illustrative review in biochemistry. Lippincott Williams &Wilkins, 6th ED, 2018.

	❖ Vasudevan DM, Seekumari S.Vaidyanathan K Textbook of biochemistry for medical students Jaypee brothers Medical Publishers Ltd., New Delhi, 7th ED. 2013
Recommended books and references (scientific journals, reports...)	❖ Al Kindy Medical Journal
Electronic References, Websites	❖ http://www.moh.gov.iq/ ❖ https://byjus.com/biology/mcq-on-proteins/ ❖ https://www.mcqbiology.com/2012/11/mcq-on-biochemistry-proteins.html ❖ https://www.ourbiochemistry.com/

1. Course Name:
1. Neurology system module 2. Reproductive system module 3. Integumentary module 4. Digestive and HB System module 5. Renal system module
2. Course Code:
NCS 301 REP 308 INS 303 GIT 212 REN 307
3. Semester / Year:
Third /S1 Third /S2
4. Description Preparation Date:
5.4.2024
5. Available Attendance Forms:
6. Number of Credit Hours (Total) / Number of Units (Total)
28 hours lectures. 4 hours discussions, 8 hours practical. Total credit 2.4
7. Course administrator's name (mention all, if more than one name)
Neurology system module/Dr. Marwa Ali Mohammed/ Saad Hassan Qassem Reproductive system module/Dr. Batool Mutar Mahdi/ Basma Maki Kedhem Integumentary module/Dr. Mohammed Abd Al-Hussein Lafta/ Bushra Yassin Tawfeeq Digestive and HB System module/Dr. Haider Hashim Abd Al-Razaq/ Suhad Taha Mohammed Urinary system module/ Dr. Shatha Salah Saad/ Raghad Qassem Mohammed
8. Course Objectives

Course Objectives	To provide an understanding of the biochemical process and the biochemi mechanisms of diseases state of the nervous, urinary, reproductive, endocrine & integumentary system which will provide modern medicine with rationale basis for the diagnosis and therapy. In addition, it provides guidance on the selection of tests as assessment of the significance of the results.

9. Teaching and Learning Strategies	
Strategy	1. Lectures. 2. Discussions 3. Practical labs

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
25	40	Knowledge,skills and values		1-Lectures. 2-Discussions 3-Practical labs	1. Written examinations 2. practical assessment 3. homework's

11.Course Evaluation

- **10%** for active participation, assignment & quizzes that delivered in class
- **5 %** for active participation, assignment & quizzes that delivered in lab
- **15%** for End - course exam.
- **70%** for the Final exam.
  - ✓ **20% practical**
  - ✓ **50% written**

12.Learning and Teaching Resources

Required textbooks (curricular books, if a Main references (sources)	❖ Champe PC, Harvey RA Lippincott Illustrative review in biochemistry. Lippincott Williams &Wilkins, 6th ED, 2018.
Recommended books and references (scientific journals, reports...)	❖ Vasudevan DM, Seekumari S.Vaidyanathan K. Textbook of biochemistry for medical students. Jaypee brothers Medical Publishers Ltd., New Delhi, 7th ED. 2013 Al Kindy Medical Journal
Electronic References, Websites	❖ http://www.moh.gov.iq/ ❖ https://byjus.com/biology/mcq-on-proteins/ ❖ https://www.mcqbiology.com/2012/11/mcq-on-biochemistry-proteins.html ❖ https://www.sanfoundry.com/

	❖ https://www.ourbiochemistry.com /

13.Course Name:
6. Neurology system module 7. Reproductive system module 8. Integumentary module 9. Digestive and HB System module 10.Urinary system module
14.Course Code:
NCS 301 REP 308 INS 303 GIT 212 REN 307
15.Semester / Year:
Third /S1 Third /S2
16.Description Preparation Date:
5.4.2024
17.Available Attendance Forms:
18.Number of Credit Hours (Total) / Number of Units (Total)
70 hours lectures. 38 hours discussions, 38 hours practical. Total credit 6.1
19.Course administrator's name (mention all, if more than one name)
Neurology system module/Dr. Marwa Ali Mohammed/ Saad Hassan Qassem Reproductive system module/Dr. Batool Mutar Mahdi/ Basma Maki Kedhem Integumentary module/Dr. Mohammed Abd Al-Hussein Lafta/ Bushra Yassin Tawfeeq Digestive and HB System module/Dr. Haider Hashim Abd Al-Razaq/ Suhad Taha Mohammed Urinary system module/ Dr. Shatha Salah Saad/ Raghad Qassem Mohammed
20.Course Objectives

Course Objectives	To provide an understanding of the biochemical process and the biochemi mechanisms of diseases state of the nervous, urinary, reproductive, endocrine & integumentary system which will provide modern medicine with rationale basis for the diagnosis and therapy. In addition, it provides guidance on the selection of tests as assessment of the significance of the results.

21.Teaching and Learning Strategies	
Strategy	1. Lectures. 2. Discussions 3. Practical labs

22. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
28	146	Knowledge,skills a values		1-Lectures. 2-Discussions 4-Practical labs	4. Written examinations 5. practical assessment 6. homework's

23. Course Evaluation

Scoring System in the 3rd year is: (Total 100%)

- **10%** for active participation, assignment & quizzes that delivered in class
- **5 %** for active participation, assignment & quizzes that delivered in lab
- **15%** for End - course exam.
- **70%** for the Final exam.
  - ✓ **20% practical**
  - ✓ **50% written**

24. Learning and Teaching Resources

Required textbooks (curricular books, if any) Main references (sources)	Champe PC, Harvey RA Lippincott Illustrative review in biochemistry. Lippincott Williams &Wilkins, 6th EI 2018
Recommended books and references (scientific journals, reports...)	Another suggested book: •Vasudevan DM, Seekumari S.Vaidyanathan K. Textbook of biochemistry for medical students. Jaypee brothers Medical Publishers Lt New Delhi, 7th ED. 2013 Suggested Journals Al Kindy Medical Journal
Electronic References, Websites	❖ http://www.moh.gov.iq/ ❖ https://byjus.com/biology/mcq-on-proteins/

	❖ https://www.mcqbiology.com/2012/11/mcq-on-biochemistry-proteins.html ❖ https://www.sanfoundry.com/ ❖ https://www.ourbiochemistry.com/