

**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:Ibn Sina University of Medical and Pharmaceutical Sciences.....

Faculty/Institute: ...College of Dentistry.....
Scientific Department: ..Department of Basic Sciences
Academic or Professional Program Name: ..Medical Chemistry.....
Final Certificate Name: ..BDS.....
Academic System: ...Yearly.....
Description Preparation Date:
File Completion Date:

Signature:

Head of Department Name:

Date:

Signature:

Scientific Associate Name:

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

1. Program Vision

Scientific skills in the field of dentistry are the most prominent example of the practical application of the theoretical outcomes of the profession. This means

that the instructor seeks to prepare graduates who are able to employ the necessary theoretical information with the practical skills acquired through practical training in order to create a dentist who is able to benefit from practical experiences

2. Program Mission

To integrate the student's theoretical and practical skills for the optimal use of medicinal chemistry in the field of dentistry.

3. Program Objectives

Preparing the student to a high level of scientific knowledge regarding the principles of how to prepare fillings using medical chemical compounds.

4. Program Accreditation

Not applicable

5. Other external influences

Not applicable

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements				Basic course
College Requirements	yes			
Department Requirements	yes			
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	
2024–2025/1 st year		Medical Chemistry	theoretical	practical

8. Expected learning outcomes of the program	
Knowledge	
Learning Outcomes 1	Gain knowledge of the types of chemical compounds and how to calculate the quantities used in preparing the types of dental fillings and the vital components in the mouth and their importance for oral and dental health.
Skills	
Learning Outcomes 2	1– Familiarity with the basics of reactions and chemical composition of compounds and methods of preparing them. 2– Benefit from employing this knowledge in his field of specialization by preparing materials and compounds used in preparing various dental fillings 3– The role of medicinal chemistry in knowing the vital components in the mouth and its importance in maintaining dental health
Learning Outcomes 3	
Ethics	
Learning Outcomes 4	Innovative integration of theoretical knowledge with practical knowledge of the role of medicinal chemistry in understanding the vital components of the mouth and its importance in maintaining dental health
Learning Outcomes 5	

9. Teaching and Learning Strategies
Lectures using power point (data show) Training on experiments in chemistry related to dentistry.

10. Evaluation methods

Daily exams, midterm and final exams, and practical exams.

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)	Number of the teaching staff	
	General	Special		Staff	Lecturer
Professor	Chemistry	Biochemistry		yes	

Professional Development

Mentoring new faculty members

Orientation of New Faculty

Professional Development for Faculty

Professional development of faculty members

12. Acceptance Criterion

13. The most important sources of information about the program

The Chemical Basis of Life/ George H. Schmid

14. Program Development Plan

1- Adopting a study plan that takes into account the academic accreditation standards of the specialization.

2- Seeking to update the curricula to keep pace with the development of curricula, rapid progress and rapid boom in science and scientific research.

3- Programmed endeavor to reach the edges of science through communication with reputable universities and cultural exchange at the level of research, visits or cultural exchange to gain experience and theoretical knowledge of science

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
5 TH YEAR		ORAL AND MAXILLOFACIAL SUREGRY	OPTIMAL												

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

Course Description Form

1. Course Name:					
Medical Chemistry					
2. Course Code:					
3. Semester / Year:					
2024-2025					
4. Description Preparation Date:					
20.11.2024					
5. Available Attendance Forms:					
6. Number of Credit Hours (Total) / Number of Units (Total)					
120 credit hrs. 60hrs theory, 60 hrs lab. training					
7. Course administrator's name (mention all, if more than one name)					
Name: Prof. Dr. Manal Azat Aziz Email: manal.aziz@ibnsina.edu.iq					
8. Course Objectives					
Course Objectives		To be familiar with employing his knowledge of the basics of reactions and chemical composition of compounds and methods of preparing them in his field of specialization by preparing materials and compounds used in preparing various dental fillings.			
9. Teaching and Learning Strategies					
Strategy		Urge the student to think about the importance of identifying the type of compounds used in preparing dental fillings and the importance of the biochemical components in the mouth for oral and dental health.			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1st semester .\')

Evaluation method	Learning methods	Practical	Theoretical	hours
Daily exams + self-assessment during the lecture + monthly exams	power point	Safety of chemicals part 1	Chemical safety	2
Daily exams + self-assessment during the lecture + monthly exams	power point	Safety of chemicals part 2	Acid, Base, Salt and salt preparation	2
امتحانات يومية + تقييم ذاتي خلال المحاضرة + امتحانات شهري	power point	Action of strong base and acid	concentration, preparation of solutions	2
امتحانات يومية + تقييم ذاتي خلال المحاضرة + امتحانات شهري	power point	Solubility rules and applications (solubility rules of salts)	Fluid and electrolyte	2
امتحانات يومية + تقييم ذاتي خلال المحاضرة + امتحانات شهري	power point	Test for negative inos(anions) part1	Buffer-pH and Acid-Base Balance	2
امتحانات يومية + تقييم ذاتي خلال المحاضرة + امتحانات شهري	power point	Test for negative inos(anions) part2	acid-base balance and blood pH	2
امتحانات يومية + تقييم ذاتي خلال المحاضرة + امتحانات شهري	power point	pH-meter	Colloids and colloidal dispersions	2
امتحانات يومية + تقييم ذاتي خلال المحاضرة + امتحانات شهري	power point	Test for positive inos(cations) part1	Chirality in Biological Systems	2
Daily exams + self-assessment during the lecture +	power point	Test for positive inos(cations) part2	Pollution	2

monthly exams				
امتحانات يومية + تقييم ذاتي خلال المحاضرة + امتحانات شهري	power point	titration	Radiochemistry	2
امتحانات يومية + تقييم ذاتي خلال المحاضرة + امتحانات شهري	power point	Aliphatic hydrocarbons	Alkanes, alkenes, alkynes	2
امتحانات يومية + تقييم ذاتي خلال المحاضرة + امتحانات شهري	power point	Aromatic hydrocarbons part 1	Aromatic compounds and Cycloalkanes	2
امتحانات يومية + تقييم ذاتي خلال المحاضرة + امتحانات شهري	power point	Aromatic hydrocarbons part 2	Stereoisomers of Carbon	2
امتحانات يومية + تقييم ذاتي خلال المحاضرة + امتحانات شهري	power point	Alcohols	Alcohols, Phenols, Ethers and Thiols (preparation, reactions)	2

2nd semester

طريقة التقييم	طريقة التعليم	Practical	Theoretical	hours	١
Daily exams + self-assessment during the lecture	power point	Carboxylic acid reactions part 1	Carboxylic Acids And Their Derivatives , part 1 and 2	2	٢
Daily exams + self-assessment during the lecture	power point	Carboxylic acid reactions part 2	Aldehydes and ketones	2	٣
Daily exams + self-assessment during the lecture	power point	Preparation of aspirin	Inorganic chemistry in dentistry	2	٤

Daily exams + self-assessment during the lecture	power point	Phenols reactions	The importance of living ions in dentistry		2	5
Daily exams + self-assessment during the lecture	power point	Carbohydrates reactions	Carbohydrates		2	6
Daily exams + self-assessment during the lecture	power point	Monosaccharides reactions	Monosaccharide's		2	7
Daily exams + self-assessment during the lecture	power point	Disaccharides reactions	Disaccharides Carbohydrates and oral health		2	8
Daily exams + self-assessment during the lecture	power point	Lipids reactions part 1	Lipids		2	9
Daily exams + self-assessment during the lecture	power point	Lipids reactions part 2	Derived lipids The role of lipids in teeth diseases		2	10
Daily exams + self-assessment during the lecture	power point	Protein reactions	Proteins		2	11
Daily exams + self-assessment during the lecture	power point	Aminoacids reactions part 1	Amino acids Effects of protein on oral health		2	12
Daily exams + self-assessment during the lecture	power point	Aminoacids reactions part 2	Nucleic Acids		2	13
Daily exams + self-	power point	Chromatography part 1	Nucleosides, Nucleotides		2	14

assessment during the lecture						
Daily exams + self-assessment during the lecture	power point	Chromatography part 2	Dioxy and ribo Nucliec acids		2	10
			Exam			

11. Course Evaluation

60 degrees for the final exam. 10 degrees for the 1st semester exam. 20 degrees on the mid exam. 10 degrees for the 2nd semester exam.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	The Chemical Basis of Life/ George Schmid
Main references (sources)	The Chemical Basis of Life/ George Schmid
google scholar, google advanced search, free full pdf	
Electronic References, Websites	