

**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:

Faculty/Institute:

Scientific Department:

Academic or Professional Program Name:

Final Certificate Name:

Academic System:

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

Program vision is written here as stated in the university's catalogue and website.

2. Program Mission

Program mission is written here as stated in the university's catalogue and website.

3. Program Objectives

General statements describing what the program or institution intends to achieve.

4. Program Accreditation

Does the program have program accreditation? And from which agency?

5. Other external influences

Is there a sponsor for the program?

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements				
College Requirements				

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

8. Expected learning outcomes of the program	
Knowledge	
Learning Outcomes 1	Learning Outcomes Statement 1
Skills	
Learning Outcomes 2	Learning Outcomes Statement 2
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	Learning Outcomes Statement 4
Learning Outcomes 5	Learning Outcomes Statement 5

9. Teaching and Learning Strategies
Teaching and learning strategies and methods adopted in the implementation of the program in general.

10. Evaluation methods
Implemented at all stages of the program in general.

11. Faculty

Faculty Members

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

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.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

State briefly the sources of information about the program.

14. Program Development Plan

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

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

Course Description Form

1. Course Name:					
Pharmacognosy II					
2. Course Code:					
phphii3B00030(2+2)					
3. Semester / Year:					
Third stage /1 st semester/ 2023-2024					
4. Description Preparation Date:					
15/2/2024					
5. Available Attendance Forms:					
Actual attendance at theoretical and practical lectures					
6. Number of Credit Hours (Total) / Number of Units (Total)					
Theory 2 hours/laboratory 2 hours / units 3					
7. Course administrator's name (mention all, if more than one name)					
Name : enass najem oubaid		email: phar.enas.najem@uobabylon.edu.iq			
Name: aseel mohammed omran		email: phar.aseel.m.omran@uobabylon.edu.iq			
Name:Hala Saad Bash		Email: phar.hala.saad@uobabylon.edu.iq			
8. Course Objectives					
Course Objectives			1-To study chemistry of other natural products namely Glycosides . 2-Also this course includes studying resin, lipids and volatile oils. 3-Moreover, this course includes studying non-medicinal toxic plants and vitamins.		
9. Teaching and Learning Strategies					
Strategy	1. Lecture 2. seminar 3. laboratory work 4. Reports 5. Discussions				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Each student should know the pathway for synthesis of secondary metabolites	General biosynthesis pathway of secondary metabolite	Lecture Scheme videos	Exams Daily activity Oral exams

2	2	Each student should know the chemical and physical properties of carbohydrate and general method for extraction	Carbohydrates	Lecture videos	Exams Daily activity Oral exams
3	2	Each student should be able to tell about the name of plant, which part of plant that contain the active glycoside, method of extraction and medicinal uses	Glycoside biosynthesis, physical and chemical properties of cardiac glycoside and saponin glycoside	Lecture videos	Exams Daily activity Oral exams
4	2	Each student should be able to tell about the name of plant, which part of plant that contain the active glycoside, method of extraction and medicinal uses	Anthraquinone glycosides, flavonoid glycoside and cyanophore glycosides	Lecture videos	Exams Daily activity Oral exams
5	2	Each student should be able to tell about the name of plant, which part of plant that contain the active glycoside, method of extraction and medicinal uses	Isothiocynate glycoside, aldehyde glycoside and alcoholic glycosides	Lecture videos	Exams Daily activity Oral exams
6	2	Each student should be able to tell about the name of plant, which part of plant that contain the active glycoside, method of extraction and medicinal uses	Phenolic glycoside, lactone glycoside, coumarin and chromones	Lecture videos	Daily activity
7	2	Each student should know the name of plant, which part of plant that contain the active ingredient, method of extraction and medical uses.	Resin, resin combination and tannins.	Lecture videos	Exams
8			Mid exam		
9	2	Each student should know the chemical and physical properties, types, examples of plants that contain the lipid, which part of plant that contain the active ingredient, method of extraction and medical uses.	Lipid	Lecture videos	Oral exams

10	2	Each student should know the chemical and physical properties, types, examples of plants that contain the volatile oils, which part of plant that contain the active ingredient, method of extraction and medical uses.	Volatile oils; introduction, chemistry and biosynthesis	Lecture videos	Exams Daily activity Oral exams
11	2	Each student should know examples of plants that contain the volatile oils, which part of plant that contain the active ingredient, method of extraction and medical uses.	Hydrocarbons, alcohol and aldehyde as volatile oil	Lecture videos	Exams Daily activity Oral exams
12	2	Each student should know examples of plants that contain the volatile oils, which part of plant that contain the active ingredient, method of extraction and medical uses.	Ketones, phenol, ester and phenolic ether as volatile oils	Lecture	Oral exams
13	2	Each student should know examples of plants and which part of plant that contain the toxic ingredient.	Non medicinal toxic plants	lecture	Exams
14	2	Each student should know type, properties and medicinal uses of vitamins, examples of plants that contain the amino acids, which part of plant that contain the active ingredient, method of extraction and medical uses.	Vitamins and amino acids	Lecture	Daily activity
15	3		Final exam		

Pharmacognosy and Pharmacobiotechnology, By James E. Robbers, Marilyn K. Speedie and Varro E. Tyler .	Fundamentals of Pharmacognosy and Phytotherapy, by Michael Heinrich, Joanne Barnes, Simon Gibbons and Elizabeth M. Williamson, second.
---	--

British pharmacopoeia
11. Course Evaluation

Google scholar

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Pharmacognosy and Pharmacobiotechnology, By James E. Robbers, Marilyn K. Speedie and Varro E. Tyler .
Main references (sources)	Fundamentals of Pharmacognosy and Phytotherapy, by Michael Heinrich, Joanne Barnes, Simon Gibbons and Elizabeth M. Williamson, second.
Recommended books and references (scientific journals, reports...)	British pharmacopoeia
Electronic References, Websites	Google scholar

Course Description Form

1. Course Name:					
Pharmacognosy III					
2. Course Code:					
phphiii3B00039 (2+2)					
3. Semester / Year:					
Third stage /2 nd semester/ 2023-2024					
4. Description Preparation Date:					
15/2/2024					
5. Available Attendance Forms:					
Actual attendance at theoretical and practical lectures					
6. Number of Credit Hours (Total) / Number of Units (Total)					
Theory 2 hours/laboratory 2 hours , units:3					
7. Course administrator's name (mention all, if more than one name)					
Name : enass najem oubaid			email: phar.enas.najem@uobabylon.edu.iq		
Name:Hala Saad Bash			Email: phar.hala.saad@uobabylon.edu.iq		
8. Course Objectives					
Course Objectives			To study chemistry of other natural products namely alkaloids and antibiotics. In addition, this course includes studying phytotherapy principles and using medicinal plants in health care system. Also identifying important natural products & phytomecines used in pharmacy & medicine.		
9. Teaching and Learning Strategies					
Strategy	<ol style="list-style-type: none"> 1. Lecture 2. seminar 3. laboratory work 4. Reports 5. Discussions 				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	2	Each student should know the physical and chemical property of alkaloid	Alkaloids: Introduction; Physical and chemical properties	Lecture Scheme videos	Exams Daily activity Oral exams
2	2	Each student should be able to tell about the name of plant, which part of plant that contain the active alkaloid, method of extraction and medicinal uses	pyridine, piperidine alkaloids; tropane alkaloids	Lecture videos	Exams Daily activity Oral exams
3	2	Each student should be able to tell about the name of plant, which part of plant that contain the active alkaloid, method of extraction and medicinal uses	Quinoline tropan alkaloids; iso-quinoline alkaloids	Lecture videos	Exams Daily activity Oral exams
4	2	Each student should be able to tell about the name of plant, which part of plant that contain the active alkaloid, method of extraction and medicinal uses	imidazole alkaloids; indole alkaloids.	Lecture videos	Exams Daily activity Oral exams
5	2	Each student should be able to tell about the name of plant, which part of plant that contain the active alkaloid, method of extraction and medicinal uses	Steroidal alkaloids; lupinane alkaloids	Lecture videos	Exams Daily activity Oral exams
6	2	Each student should be able to tell about the name of plant, which part of plant that contain the active alkaloid, method of extraction and medicinal uses	alkaloidal amines and purine alkaloids.	Lecture videos	Daily activity
7	2		Mid term exam.	Lecture videos	Exams
8		Each student should know the natural sources of antibiotics	Antibiotics: Natural sources		
9	2	Each student should know the biosynthetic pathways of antibiotics	Antibiotics: biosynthetic pathways	Lecture videos	Oral exams

10	2	Each student should know the method of isolation and purification of antibiotics.	Antibiotics: isolation and purification.	Lecture videos	Exams Daily activity Oral exams
11	2	Each student should know INTRODUCTION AND PRINCIPLE OF PHYTOTHERAPY	Phytotherapy	Lecture videos	Exams Daily activity Oral exams
12	2	Each student should know uses of plants in treatment of disease	phytotherapy: using of medicinal plants in selected health care systems.	Lecture	Oral exams
13	2	Each student should know uses of plants in pharmacy	phytotherapy :Important natural products & phytomecines used in pharmacy & medicine part 1	lecture	Exams
14	2	Each student should know uses of plants in pharmacy	phytotherapy :Important natural products & phytomecines used in pharmacy & medicine part II	Lecture	Daily activity
15	3		Final exam.		

11. Course Evaluation					
Distributing the score out of 100 according to the tasks assigned to the student such as theoretical 20%, practical 20%, final exam 60%.....					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)					
Main references (sources)					
Recommended books and references (scientific journals, reports...)					
Electronic References, Websites					

Course Description Form

1. Course Name:	
Pharmacognosy I	
2. Course Code:	
Phphi2B00026 (3+2)	
3. Semester / Year:	
Second year /second semester	
4. Description Preparation Date:	
15/2/2024	
5. Available Attendance Forms:	
Actual attendance at theoretical and practical lectures	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(5)	(4)
7. Course administrator's name (mention all, if more than one name)	
Name: Aseel Mohammad Omran E.mail: phar.aseel.m.omran@uobabylon.edu.iq	
Name: Alaa Hamady obeid Al- Taei E.mail: phar.alaa.hamady@uobabylon.edu.iq	
.....	
.....	
8. Course Objectives	
Course Objectives	1- Teaching the fundamentals and principles of pharmacognosy and phytochemistry. 2- learning phytochemicals extraction 3- learning how are increasing phytochemical compounds
9. Teaching and Learning Strategies	
Strategy	1- Theoretical lectures 2- Educational laboratories 3- Scientific reports 4- Seminars

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3	Each student should know the pharmacognosy, definitions & basic principles,	General introduction: the scope of pharmacognosy, definitions & basic principles	lecture	Daily, Mid term and final exam
2	3	Each student should know the plant nomenclature & taxonomy, production of crude drugs	Classification of natural products, plant nomenclature & taxonomy, production of crude drugs	Lecture	Daily, Mid term and final exam
3	3	Each student should know the Pharmacological activities of medicinal plants,	Pharmacological activities of medicinal plants,	Lecture	Daily, Mid term and final exam
4	3	Each student should know the adulteration of crude drugs	adulteration of crude drugs Deterioration of crude drugs	Lecture	Daily, Mid term and final exam
5	3	Each student should know the chemistry of natural products	Chemistry of natural products Quality control of crude drugs	Lecture	Daily, Mid term and final exam
6	3	Each student should know the Extraction of plant Materials	Phytochemistry: Extraction of plant Materials	Lecture	Daily, Mid term and final exam
7	3	Each student should know the Chromatography	Chromatography: introduction, Classification, mechanism	Lecture	Daily, Mid term and final exam

8	3	Each student should know the thin layer chromatography	Thin layer chromatography	Lecture	Daily, Mid term and final exam
9	3	Each student should know the paper chromatography	Paper chromatography	Lecture	Daily, Mid term and final exam
10	3	Each student should know the Column chromatography	Column chromatography	Lecture	Daily, Mid term and final exam
11	3	Each student should know the Gas liquid chromatography	Gas –liquid chromatography	Lecture	Daily, Mid term and final exam
12	3	Each student should know the HPLC	HPLC	Lecture	Daily, Mid term and final exam
13	3	Each student should know the tissue culture of medicinal plants	Tissue culture of medicinal plants: introduction & history	Lecture	Daily, Mid term and final exam
14	3	Each student should know the plant tissue culture, aseptic technique	Laboratory of the plant tissue culture, aseptic technique	Lecture	Daily, Mid term and final exam
15	3	Each student should know the application of plant tissue culture	Application of plant tissue culture , environmental & biological control, plant growth regulator	lecture	Daily, Mid term and final exam

11. Course Evaluation					
20 practical 20 theoretical 60 final					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)			Pharmacognosy by Trease and Evans		
Main references (sources)			-. Pharmacognosy and Pharmacobiotechnology , By James E. Robbers, Marilyn K. Speedie and Varro E. Tyler		
Recommended books and references (scientific journals, reports...)			Phytochemistry and pharmacognosy		
Electronic References, Websites			Google scholar		