

Academic Program Description Form

University Name: Al-Nahrain

Faculty/Institute: College of Pharmacy

Scientific Department: Clinical Pharmacy

Academic or Professional Program Name: Pharmaceutics

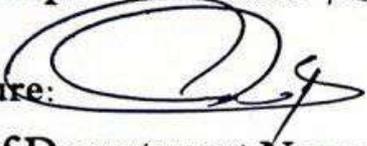
Final Certificate Name: Bachelor's Degree

Academic System: Courses

Description Preparation Date: 3/2/2026

File Completion Date: 5/2/2026

Signature:

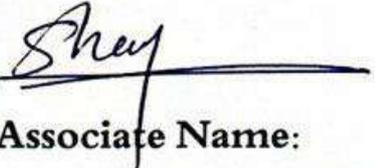


Head of Department Name:

Dr. Muhanned Abdulsahib

Date: 5.3.2026

Signature:



Scientific Associate Name:

Assistant Professor

Dr. Shaimaa Hussein Hammoudi

Date: 5.3.2026

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Dr. Noor Adil Abood

Date: 8/3/2026

Signature:



Approval of the Dean

Professor Dr. Hayder Bahaa Sahib



**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

2025-2026

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.

1. Program Vision

To change the face of pharmacy through innovations that improves health

2. Program Mission

To advance the precise, safe, and effective use of medicines to improve health through excellence in patient care, education, research, and public service

3. Program Objectives

1. **Contribute leadership at the local, national levels to fulfill the mission and visions of the department, faculty, university and profession.**
2. **Improve the health and well-being of patients by facilitating and providing safe and effective medication use, and by identifying, examining and eliminating barriers to optimal medication use.**
3. **Advance the role of pharmacy and pharmacists in improving the public health and enhancing the quality of human life through education and training, clinical preventive services, and community-based health promotion and disease prevention activities.**
4. **Providing education to students in various aspects of pharmacy practice, utilizing the principles of pharmaceutical care, problem-based learning and critical thinking that all together enable them to acquire in-depth expertise in pharmaceutical, social/economic management and in related sciences in order to function as practitioners and scientists.**
5. **Serving the community by providing pharmaceutical care activities that lead to improvements in healthcare delivery and enhances health outcomes.**
6. **Contributing to the profession of pharmacy by participation in leadership roles in pharmaceutical organization and community programs**

4. Program Accreditation

Try Getting it.

5. Other external influences

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
	8	21		

Department Requirements				
Summer Training	1	1		Satisfied
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
Third stage (one course)		Pharmacy ethics	One hour weekly	
Fourth stage (one course)		Communication	Two hours weekly	
Fourth stage course		pharmacy Clinical	weekly hours Two	Two for each course hours
Fifth stage (two course)		Applied Therapeutic	Two hours second course Three hours first course	
Fifth stage (One course)		Therapeutic drug monitoring	Two hours weekly	Two hours weekly
Fifth stage (One course)		pharmacoeconom ic	Two hours weekly	
Fifth stage (One course)		Hospital training		Two hours weekly

8. Expected learning outcomes of the program	
Knowledge	
Learning Outcomes 1	1-Studying the different types of simple diseases and how to deal with them in the pharmacy
	2- Studying different diseases (causes, symptoms, diagnosis and treatment)
	3- Study the communication skills necessary for the work of the pharmacist

	4- Studying the ethics of the pharmacy profession
	5- Studying the foundations of the pharmaceutical economy
	6- Studying the methods of calculating the concentrations of dangerous drugs in the blood and how to deal with them
Skills	
	Communication skills with patients
	The skill of drug education for patients
	The skill of extracting the required information from its approved sources
Ethics	
	-Thinking skills through translating, analyzing, evaluating and extracting ideas
	- Cultivating ethical values for the correct treatment of patients

9. Teaching and Learning Strategies

- By giving theoretical, practical and practical lectures and assigning small groups create educational scenarios
- Simulate the work of a pharmacist in pharmacies

10. Evaluation methods

Reviewing personal thinking skills, presenting results, and using new methods of learning

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)	Number of the teaching staff	
	General	Special		Staff	Lecturer
Le. Dr. Saba hameed Email: dr.saba.hameed@nahrainiv.edu.iq	Sciences in pharmacy	Clinical pharmacy	Breast cancer awareness	1	
Ass. Le. Mohammed murtaadha hussein EMAIL: Muhammed.murtadha@nahrainuniv.edu.iq	Sciences in pharmacy	Clinical pharmacy	Statistics analysis of clinical scientific research	2	1
Name: Ass.Le . aya fawzi Email: Aya.fawzi@nahrainuniv.edu.iq	Sciences in pharmacy	Clinical pharmacy	World arthritis's day		
Name: Ass.Le. aisha muthana Email: aisha.muthana@nahrainuniv.edu.iq	Clinical pharmacy	Clinical pharmacy	World neglected tropical disease day AI application in medicine		

Professional Development

Mentoring new faculty members

There are certain units within the program for personal development, giving students opportunities and encouraging them to engage in Professionally relevant qualifications that allow students to reflect on their own professional development also, Participation in seminars and workshops presented by the branch

Professional development of faculty members

Participation in seminars and workshops presented by the branch such as

Anti-oxidant and aging process

Statistics analysis of clinical scientific research

12. Acceptance Criterion

The student is accepted into the college within the central admission of the Ministry of Higher Education and Scientific Research.

13. The most important sources of information about the program

The World Health Organization and various scientific sources from books and the Internet
And the Committee of Deans of Colleges of Pharmacy in Iraq.

14. Program Development Plan

In the process of obtaining approvals

There are certain units within the program for personal development, giving students opportunities and encouraging them to engage in Professionally relevant qualifications that allow students to reflect on their own professional developme

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
Third stage (one course)		Pharmacy ethics	Basic	√	√	√	√	√	√	√		√	√		
Fourth stage		Communication skill	Basic	√	√	√	√	√	√	√	√	√	√	√	√
		Clinical pharmacy I	Basic	√	√	√	√	√	√	√	√	√	√	√	√
		Clinical pharmacy II	Basic	√	√	√	√	√	√	√	√	√	√	√	√
Fifth stage		Therapeutic I	Basic	√	√	√	√	√	√	√	√	√	√	√	√
		Therapeutic II	Basic	√	√	√	√	√	√	√	√	√	√	√	√
		Therapeutic drug monitoring	Basic	√	√	√	√	√	√	√	√	√	√	√	√
		Pharmacoeconomy	Basic	√	√	√	√	√	√	√	√	√	√	√	√
		Hospital training	Basic	√	√	√	√	√	√	√	√	√	√	√	√

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

Course Description Form

1. Course Name: **Theory clinical pharmacy I**

2. Course Code:

3. Semester / Year: 1 semester\ forth years

4. Description Preparation Date:2025

5. Available Attendance Forms: Course system

6. Number of Credit Hours (Total) / Number of Units (Total): 2

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

Name: Ass.Le . aya fawzi

Email: Aya.fawzi@nahrainuniv.edu.iq

NAME: Ass. Le. Mohammed murtaadha hussein

EMAIL: Muhammed.murtadha@nahrainuniv.edu.iq

Name: Muhanad abdulshahib

Email: Muhanad.abdulshahib@nahrainuniv.edu.iq

8. Course Objectives

Course Objectives

To develop the understanding and acceptance of clinical pharmacy and understanding pharmaceutical care as concepts and applications that enable the students to ensure safe and effective use of medication in disease state as a part of medical team

-
-
-

9. Teaching and Learning Strategies

Strategy	Learning Outcomes, Teaching, Learning and Assessment Method

--	--

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Define of clinical and community pharmacy with drug distribution patients' education	Introduction to clinical and community pharmacy: drug distribution system, principles of patient education	Ppt	Quiz
2	2	Management of pediatric and geriatric	Clinical pharmacy practice in neonate pediatric and geriatric	Ppt	Report
3	2	Management of Cough, common cold and allergic rhinitis	Clinical pharmacy in respiratory system care: Cough common cold and allergic rhinitis.	Ppt	Quiz
4	2	Management of diarrhea, constipation, GERD and hemorrhoid.	Clinical pharmacy in GIT system care: diarrhea, constipation, GERD and hemorrhoid.		Report
5	2	Oral thrush and head lice treatment	Pediatric care practice: oral thrush and head lice.	Ppt	Quiz
6	2	Pharmaceutical care of acne, scabies, psoriasis, hair loss and athletes foot.	Pharmacy care in skin conditions: acne, scabies, psoriasis, hair loss and athletes foot.	Ppt	Report
7	2	Management of cystitis and vaginal thrush and emergency contraceptive techniques	Women health care: cystitis and vaginal thrush, primary dysmenorrhea and emergency contraceptive techniques	Ppt	Quiz
8	2	Management of headache, insomnia, and motions sickness.	Pharmacy care in CNS related problems: headache, insomnia, and motions sickness.	Ppt	Report
9	2	Eye disorders management	Pharmacy care in eye disorders.	Ppt	Quiz
10	2	ENT conditions treatment	Pharmacy care in ENT conditions.	Ppt	Quiz
11	1	mouth ulcer and mouth thrush treatment	Pharmacy care in oral hygiene: mouth ulcer and mouth thrush.	Ppt	Report
12	2	Controlling of weight and obesity treatment.	Pharmacy care in obesity and body weight control.	Ppt	Quiz
13	1	Management of musculoskeletal disorders.	Pharmacy care in management pain and musculoskeletal disorders.	Ppt	Report
14	2	Advice and treatment of smoker persons	Nicotine replacement therapy (NRT).	Ppt	Quiz

15	1	Poisoning management.	Clinical pharmacy practice in poisoning.	Ppt	Report
16	2	Medicines used for eczema and dermatitis; dandruff.	Clinical pharmacy practice in eczema and dermatitis; dandruff.	Ppt	Quiz
17	2	Management of skin infection	Clinical pharmacy in fungal skin infection; cold sore, corns and callus	Ppt	Quiz
					Final exam

1. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

Midterm exam 15 degree + 5 degree daily preparation, daily oral, monthly, or written exams, reports

Laboratory degree= 20 degree

Final exam = 60 degree

2. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Roger Walker, Clive Edwards (eds) Clinical Pharmacy & Therapeutics
Main references (sources)	Roger Walker, Clive Edwards (eds) Clinical Pharmacy & Therapeutics
Recommended books and references (scientific journals, reports...)	Articles
Electronic References, Websites	World health organization FDA (U.S. Food and Drug Administration)

Course Description Form

3. Course Name: Practical clinical pharmacy I					
4. Course Code:					
5. Semester / Year: Semester 1\ forth years					
6. Description Preparation Date: 2025					
7. Available Attendance Forms: Course system					
8. Number of Credit Hours (Total) / Number of Units (Total): 2					
9. Course administrator's name (mention all, if more than one name)					
<p>Name: Ass. Le. Mohammed murtaadha hussein Email: Muhammed.murtadha@nahrainuniv.edu.iq NAME: Name: Ass.Le . aya fawzi Email: Aya.fawzi@nahrainuniv.edu.iq Name : Hayder kadham al-jawadee</p>					
10. Course Objectives					
Course Objectives					
<p>To introduce students to the philosophy of pharmaceutical care and the skills and attitudes necessary to develop a pharmaceutical care practice. and To emphasize the active and collaborative learning activities to provide students with problem solving skills, communication skills, ethical standard of conduct and responsible attitude toward patient care as well as a sound scientific knowledge base</p>		<ul style="list-style-type: none"> • • • 			
11. Teaching and Learning Strategies					
Strategy	Learning Outcomes, Teaching ,Learning and Assessment Method				
12. Course Structure					
Week	Hours	Required Learning	Unit or subject name	Learning method	Evaluation method

		Outcomes			
1	2	Learning how to communicate with patients	Communication with patients	Ppt	Quiz
2	2	Management of cough	Respiratory system in practice (part II): cough	Ppt	Report
3	2	Management of common cold	Respiratory system in practice (part II): common cold.	Ppt	Quiz
4	2	Constipation management	GIT system practice (part I): constipation.	Ppt	Report
5	2	Diarrhea manegment	GIT system practice (part II): diarrhea and IBS	Ppt	Quiz
6	2	GERD treatment	GIT system practice (part III): GERD	Ppt	Report
7	2	Management of hair loss, cold sore athletes foot	Skin conditions in practice (part I): hair loss, cold sore and athlete's foot	Ppt	Quiz
8	2	Dandruff and eczema treatment	Skin conditions in practice (part II): dandruff and eczema.	Ppt	Report
					Med term exam
9	2	Wart and scabies treatment	Skin conditions in practice (part III): warts and scabies.	Ppt	Quiz
10	2	Principles of pharmacy practice part I	Collective practice number I.	Ppt	Quiz
11	1	oral thrush, colic, pinworm and napkin rash. Treatment	Pediatrics in practice: oral thrush, colic, pinworm and napkin rash.	Ppt	Report
12	2	Eye disorder treatment	Minor eye disorder in practice.	Ppt	Quiz
13	2	Women health education	Women health in practice.	Ppt	Report
14	2	Management of Insomnia and motion sickness	Insomnia and motion sickness in practice.	Ppt	Quiz
15	2	Principles of pharmacy practice part II	Collective practice number II	Ppt	Report

13. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

Laboratory degree= 20 degree(10 degree final +10 degree from- daily preparation, daily oral, monthly, or written exams, reports

14. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Roger Walker, Clive Edwards (eds), Clinical Pharmacy & Therapeutics
Main references (sources)	Roger Walker, Clive Edwards (eds), Clinical Pharmacy & Therapeutics
Recommended books and references (scientific journals, reports...)	Articles
Electronic References, Websites	World health organization FDA (U.S. Food and Drug Administration)

Course Description Form

15.	Course Name: Theory applied therapeutic I
16.	Course Code:
17.	Semester / Year: semester 1 \ fifth years
18.	Description Preparation Date:2025
19.	Available Attendance Forms: course system
20.	Number of Credit Hours (Total) / Number of Units (Total): theory 3
21.	Course administrator's name (mention all, if more than one name)
<p>Name: Muhanad abdulsahib Email: Muhanad.abdulsahib@nahrainuniv.edu.iq Name: Le. Dr. Saba hameed Email: dr.saba.hameed@nahrainiv.edu.iq</p>	
22.	Course Objectives
Course Objectives	<p>1- To improve the knowledge and practice of students in the clinical application of drugs to the treatment of diseases and disorders in different organ systems</p> <p>2- Help students integrate clinical pharmacy practice with other health care providers in the clinical settings.</p>
23.	Teaching and Learning Strategies

Strategy	<ul style="list-style-type: none"> -the blackboard -PowerPoint slides -learning (social networking sites: the branch has a special channel that includes video lectures)
-----------------	---

24. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Management of hypertension	Pharmacotherapy of Cardiovascular Disorders: Hypertension.	ppt	Quiz
2	2	Management of heart failure	Drug therapy in heart failure.	ppt	Quiz
3	2	Management of acute coronary syndrome	Drug therapy in ischemic heart diseases and acute coronary syndrome.	ppt	Report
4	2.	Management of stroke and arrhythmias	Drug therapy in arrhythmias and stroke.	ppt	Quiz
5	2	Management of dyslipidemia	Pharmacotherapy in dyslipidemia and venous thromboembolism.	ppt	Quiz
6	2	Management of hypovolemic shock	Drug therapy in hypovolemic shock, intensive care (DKA).	ppt	Report
7	2	Management of asthma and COPD	Pharmacotherapy of Respiratory disorders: Asthma and COPD.	ppt	Quiz.
8	2	Management of lower respiratory tract infection	Drug therapy in cystic fibrosis and upper and lower respiratory tract infections.	ppt	Quiz
9	2	Management of GIT disorders	Pharmacotherapy in gastrointestinal disorders: GERD and peptic ulcer diseases.		Report
10	2	Management of IBS and IBD	Drug therapy in inflammatory bowel disease and irritable bowel syndrome.	ppt	Quiz
11	2	Management of liver cirrhosis and hepatitis	Drug therapy in portal hypertension and liver cirrhosis, viral hepatitis.		Quiz
					Mid term exam
12	1	Treatment of N/V	Drug therapy in nausea and vomiting and pancreatitis.		Quiz
13	2	Management of acute renal failure	Pharmacotherapy in renal disorders: Acute renal failure.	ppt	Report
14	3	Management of end stage renal disease	Drug therapy in chronic end-stage renal diseases.	ppt	Quiz
15	3	Management of urinary tract infection and electrolyte disorder	Drug therapy in fluid and electrolyte disorders and acid base disturbances; urinary tract infections.	ppt	Report
16	1	Management of enuresis	Drug therapy in urinary incontinence and pediatric	ppt	Quiz

			enuresis.		
17	1	Treatment of erectile dysfunctions	Drug therapy benign prostatic hyperplasia and erectile dysfunction.	Ppt	Report
18	2	Management of epilepsy and status epilepticus	Pharmacotherapy in neurologic disorders: epilepsy and status epilepticus.	Ppt	Quiz
19	2	Management of MS, Parkinson disease	Drug therapy in multiple sclerosis; Parkinson disease and management of pain.	Ppt	Report
20	2	Treatment of gynecology and obstetrics disorders	Pharmacotherapy in gynecology and obstetrics disorders: Therapeutic considerations in pregnancy and lactation.	Ppt	Quiz
21	3	Management of menstrual disorder	Drug therapy in menstruation related disorders; contraception.	Ppt	Quiz
22	1	Uses of HRT in menopause women	Hormone replacement therapy in menopause	Ppt	Report

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc
Midterm exam 25degree + 5-degree daily preparation, daily oral, monthly, or written exams, reports
Final exam = 70 degree

24. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Roger Walker, Clive Edwards (eds), Clinical Pharmacy & Therapeutics.
Main references (sources)	Barbara G.Wells & Joseph T. Diriro, Pharmacotherapy hand book 7th Edition
Recommended books and references (scientific journals, reports...)	Articles
Electronic References, Websites	World health organization FDA (U.S. Food and Drug Administration)

Course Description Form

25.	Course Name: Practical hospital training	
26.	Course Code:	
27.	Semester / Year: Semester 1\ fifth years	
28.	Description Preparation Date: 2025	
29.	Available Attendance Forms: Course system	
30.	Number of Credit Hours (Total) / Number of Units (Total): 20 hours	
31.	Course administrator's name (mention all, if more than one name)	
<p>Name: Muhanad abdulsahib Email: Muhanad.abdulsahib@nahrainuniv.edu.iq Name: Le. Dr. Saba hameed Email: dr.saba.hameed@nahrainiv.edu.iq Name: Ass. Le. Mohammed murtaadha hussein Email: Muhammed.murtadha@nahrainuniv.edu.iq Name: Mohand abd alsahib Name: Ass.Le . aya fawzi Email: Aya.fawzi@nahrainuniv.edu.iq Name: Ass.Le. aisha muthana Email: aisha.muthana@nahrainuniv.edu.iq</p>		
32.	Course Objectives	
Course Objectives	To teach students the application of pharmaceutical practice to different hospital wards. It includes training on case evaluation and follow-up, evaluation of therapeutic regimens and registration of errors related to drug therapy and presenting ideas to solve the problems.	
33.	Teaching and Learning Strategies	
Strategy	<ul style="list-style-type: none"> -the blackboard -PowerPoint slides -learning (social networking sites: the branch has a special channel that includes video lectures) 	

34. Course Structure					
----------------------	--	--	--	--	--

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	20	Clinical practice for internal medicines cases in wards	Clinical Pharmacy Practice in Internal Medicine: Clinical observation of cases; evaluation of the case sheets; case presentation; discussion and evaluation.	ppt	Quiz
2	20	Clinical practice for surgery cases in wards	Clinical Pharmacy Practice in Surgery wards: Clinical observation of cases; evaluation of the case sheets; case presentation; discussion and evaluation.	ppt	Quiz
3	20	Clinical practice for gynecology and obstetrics cases in wards	Clinical Pharmacy Practice in Gynecology and Obstetrics Ward: Clinical observation of cases; evaluation of the case sheets; case presentation; discussion and evaluation.	ppt	Quiz
4	20	Clinical practice for pediatrics cases in wards	Clinical Pharmacy Practice in pediatrics cases Ward: Clinical observation of cases; evaluation of the case sheets; case presentation; discussion and evaluation.	ppt	Quiz

35. Course Evaluation					
-----------------------	--	--	--	--	--

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc
 Midterm exam 40 daily preparation, daily oral, monthly, or written exams, reports and case presentations
 Final exam = 60 degree

36. Learning and Teaching Resources					
-------------------------------------	--	--	--	--	--

Required textbooks (curricular books, if any)	Roger Walker, Clive Edwards (eds), Clinical Pharmacy & Therapeutics. Barbara G.Wells & Joseph T. Dirin Pharmacotherapy hand book 7th Edition
---	--

	BNF 70
Main references (sources)	Roger Walker, Clive Edwards (eds), Clinical Pharmacy & Therapeutics. Barbara G.Wells & Joseph T. Dirr Pharmacotherapy hand book 7th Edition BNF 70
Recommended books and references (scientific journals, reports...)	Articles
Electronic References, Websites	World health organization FDA (U.S. Food and Drug Administration)

Course Description Form

37. Course Name: Medical ethics	
38. Course Code:	
39. Semester / Year: Semester 2\ third years	
40. Description Preparation Date: 2025	
41. Available Attendance Forms: Course system	
42. Number of Credit Hours (Total) / Number of Units (Total): Theory 1	
43. Course administrator's name (mention all, if more than one name)	
Name: Ass.Le . aya fawzi Email: Aya.fawzi@nahrainuniv.edu.iq	
44. Course Objectives	
Course Objectives	1–The course will provides an overview of eth issues facing practicing pharmacists in order enable the student to understand the ba concepts of ethics which formulate

relationship of pharmacist with the patient, colleagues, and other health personnel in order to deliver his pharmaceutical services in good work.

2–The course will begin with an introduction to ethics in pharmaceutical practice and then proceed to examine in depth specific topics (Beneficence, Autonomy, Confidentiality, Consent...).

3–The course will include lectures, case analysis, and classroom discussion

45. Teaching and Learning Strategies

Strategy	-By giving theoretical, practical and practical lectures and assigning small groups to create educational scenarios -Simulate the work of a pharmacist in pharmacies
-----------------	---

46. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Theory in pharmacy ethics	Introduction to Pharmacy Ethics (Theoretical considerations).	ppt	Quiz
2	1	Learning of pharmacist how dealing with staff and patients	Code of Ethics for Pharmacists	ppt	Report
3	3	Ethical considerations	Common Ethical Considerations in Pharmaceutical Care Practice (Beneficence, Autonomy, Honesty, Informed Consent, Confidentiality, Fidelity)	ppt	Quiz
4	2	Pharmacist relationship with other medical team	Interprofessional Relations		Med term
5	1	Ethical decisions	Making ethical decisions.	ppt	Quiz
					Med term
6	1	Ethical issues in to clinical pharmacy research	Ethical issues related to clinical pharmacy research	ppt	Quiz
7	1	Ethical problems in clinical pharmacy	Ethical problems in the pharmacist's clinical practice.	ppt	Quiz

8	1	Medication errors	Preventing misuse of medicines	ppt	Quiz.
9	3	Case studies in ethics	Case studies in pharmacy ethics	ppt	Quiz
					Final

47. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc
 Midterm exam 25degree + 5-degree daily preparation, daily oral, monthly, or written exams, reports
 Final exam = 70 degree

48. Learning and Teaching Resources

Required textbooks (curricular books, if any)	<p>1- Ruth Rodgers, (ed.); fast track: Law and Ethics in Pharmacy Practice. Pharmaceutical Press 2010.</p> <p>2-Joy Wingfield and David Badcott . Pharmacy Ethics and Decision Making. Pharmaceutical Press2007</p> <p>3-Robert J. Cipolle, Linda M. Strand, Peter C. Morley. Pharmaceutical Care Practice: The Clinician's Guide, 2nd Edition.</p> <p>4- Robert m. Veatch and Amy Haddad. Case Studies in Pharmacy Ethics. second edition. Copyright © 2008 by Oxford University Press, Inc.</p>
Main references (sources)	<p>1- Ruth Rodgers, (ed.); fast track: Law and Ethics in Pharmacy Practice. Pharmaceutical Press 2010.</p> <p>2-Joy Wingfield and David Badcott . Pharmacy Ethics and Decision Making. Pharmaceutical Press2007</p> <p>3-Robert J. Cipolle, Linda M. Strand, Peter C. Morley. Pharmaceutical Care Practice: The Clinician's Guide, 2nd Edition.</p> <p>4- Robert m. Veatch and Amy Haddad. Case Studies in Pharmacy Ethics. second edition. Copyright © 2008 by Oxford University Press, Inc.</p>
Recommended books and references (scientific journals, reports...)	Articles
Electronic References, Websites	World health organization

Course Description Form

49.	Course Name: Communication skills	
50.	Course Code:	
51.	Semester / Year: Semester 2\ fourth years	
52.	Description Preparation Date:2025	
53.	Available Attendance Forms: Course system	
54.	Number of Credit Hours (Total) / Number of Units (Total): Theory 2	
55.	Course administrator's name (mention all, if more than one name)	
Name :Ass.Le. aisha muthana Email : aisha.muthana@nahrainuniv.edu.iq		
56.	Course Objectives	
Course Objectives	1-. Communication skill is one of the missions of pharmacy care practice, aims to develop a conventional relationship between pharmacist and patients, in which information is exchanged, hold in confidence and used to optimize patient care through appropriate drug therapy. 2- This course is intended to pharmacist provide better care to patients, and focus on communication skills necessary	
57.	Teaching and Learning Strategies	
Strategy	the blackboard -PowerPoint slides -learning (social networking sites: the branch has a special channel that includes video lectures)	

58. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Elements of Interpersonal Communication	Principles and Elements of Interpersonal Communication	ppt	Quiz
2	2	Nonverbal communication	Nonverbal type of communication	ppt	Quiz
3	2	Types of comm. Barriers	Barriers to communication	ppt	Report
4	2	empathic responding during communication	Listening and empathic responding during communication.	Ppt	Quiz
5	2	pharmacists take an active role in patient care	Assertiveness.	ppt	Quiz
6	2	Determining what patients understand about their medications, how they are taking their medications	Interviewing and assessment.	ppt	Report
7	2	Advices on therapeutic medication regimen	Helping patients to manage therapeutic regimens.	ppt	Quiz.
8	2	Counseling scenario	Patient counseling; counseling check list point-by-point discussion; 2 counseling scenario	ppt	Quiz
					Med term exam
9	2	Medication safety	Medication safety and communication skills.	ppt	
10		special communication needs (older adults; persons with hearing, sigh	Strategies to meet specific needs	Ppt	
11	2	Understanding the Cognitive Developmental Level of a Child	Communicating with children and elderly about medications	Ppt	

12	2	enhancing relationships between pharmacists and other health care providers	Communication skills and inter-professional collaboration.	Ppt	
13	2	use of electronic means of communication	Electronic communication in healthcare	Ppt	
14	2	how an ethical framework is often needed to guide their behavior when dealing with patients	Ethical behavior when communicating with patients	Ppt	
15	1	Patients review information about their destinations and itinerary and consider potential self-care options	Travel health	Ppt	
16	1	Medical insurance	Health insurance	Ppt	
					Final exam

58. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc
Midterm exam 25degree + 5-degree daily preparation, daily oral, monthly, or written exams, reports
Final exam = 70 degree

59. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1-Robert S. Beardsley, (ed.); Communication Skills Pharmacy Practice
Main references (sources)	1-Robert S. Beardsley, (ed.); Communication Skills Pharmacy Practice
Recommended books and references (scientific journals, reports...)	Articles
Electronic References, Websites	World health organization

Course Description Form

60.	Course Name: Theory Clinical pharmacy II
61.	Course Code:
62.	Semester / Year: Semester 2\ fourth year
63.	Description Preparation Date: 2025
64.	Available Attendance Forms: Course system
65.	Number of Credit Hours (Total) / Number of Units (Total): Theory 2
66.	Course administrator's name (mention all, if more than one name)
<p>Name: Ass. Le. Mohammed murtaadha hussein Email: Muhammed.murtadha@nahrainuniv.edu.iq Name: Ass.Le . aya fawzi Email: Aya.fawzi@nahrainuniv.edu.iq</p>	
67.	Course Objectives
Course Objectives	<p>1-To develop an understanding and acceptance of clinical pharmacy and pharmaceutical care as concepts and application</p> <p>2-To enable the student for ensure safe and effective use of medications in disease state as a part of medical team.</p> <p>3-This course will focus on the philosophy and application of clinical pharmacy services in hospitals, through which students will be exposed to general medical problems (disease state and to be actively involved in different aspects of therapy of different disease</p>
68.	Teaching and Learning Strategies
Strategy	<p>-By giving theoretical, practical and practical lectures and assigning small groups to create educational scenarios</p> <p>-Simulate the work of a pharmacist in pharmacies</p>

69. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Function of clinical pharmacist as a part of medical team	Introduction to the concept of clinical pharmacy- its activities and professional responsibilities. (Including current state of clinical pharmacy in Iraq).	ppt	Quiz
2	1	Role of pharmacist in patient care process	Overview of pharmaceutical care practice (the patient care process).	ppt	Quiz
3	2	Anemia types and management	Hematologic disorders: Anemia and sickle cell disease.	ppt	Quiz
4	2	Treatment of hypertension	Hypertension.	ppt	
5	2	Management of IHD	Ischemic heart diseases	ppt	Quiz
6	2	Management of HF	Heart failure.	ppt	Quiz
7	1	Treatment of Peripheral vascular diseases.	Peripheral vascular diseases	ppt	Quiz
8	2	Asthma management	Asthma.	ppt	Quiz
9	1	Management of COPD	Chronic obstructive pulmonary disease	ppt	Quiz
10	2	Management of DKA	Diabetes mellitus & Diabetic ketoacidosis (DKA)	ppt	
					Mid term exam
11	2	Management of peptic ulcer	Peptic ulcer disease	ppt	Quiz
12	1	Treatment of T.B	Tuberculosis	ppt	Report
13	1	Types and treatment of Infective meningitis	Infective meningitis	ppt	Quiz

14	2	Treatment of upper and lower RTI	Respiratory tract infections	ppt	Report
15	1	Management of GIT infection	GIT infections	ppt	Quiz
16	1	Management of hyperuricemia	Gout and hyperuricemia	ppt	Report
17	2	Treatment of RA and OA	Rheumatoid arthritis (RA) and osteoarthritis (OA)	ppt	
18	1	Management of osteoporosis	Osteoporosis and other metabolic bone disease	Ppt	
19	1	Management of endocarditis	Infectious Endocarditis	Ppt	
20	1	Antibiotics used preoperative	Surgical antibiotic prophylaxis	Ppt	
21	1	Management of UTI	Urinary tract infection (UTI)	Ppt	
					Final exam

70. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc
 Midterm exam 15 degree + 5 degree daily preparation, daily oral, monthly, or written exams, reports
 Laboratory degree= 20 degree
 Final exam = 60 degree

71. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Roger Walker, Clive Edwards (eds), Clin Pharmacy & Therapeutics
Main references (sources)	Roger Walker, Clive Edwards (eds), Clin Pharmacy & Therapeutics
Recommended books and references (scientific journals, reports...)	Articles
Electronic References, Websites	World health organization

Course Description Form

72.	Course Name: Practical Clinical pharmacy II	
73.	Course Code:	
74.	Semester / Year: Semester 2\ fourth years	
75.	Description Preparation Date: 2025	
76.	Available Attendance Forms: Course system	
77.	Number of Credit Hours (Total) / Number of Units (Total)	
78.	Course administrator's name (mention all, if more than one name)	
<p>Name: Ass. Le. Mohammed murtaadha hussein Email: Muhammed.murtadha@nahrainuniv.edu.iq Name: Ass.Le . aya fawzi Email: Aya.fawzi@nahrainuniv.edu.iq Name: Hayder aljawadi</p>		
79.	Course Objectives	
Course Objectives	<p>1- The second part progressively build toward more self-directed/ self-managed learning activities</p> <p>2-helping the student to deal with increasingly complex problems and issues in patient care and practice management.</p> <p>3-Various teaching and learning methods are used throughout the series including problem- dispensing, patients counseling, drug administration techniques) both to enhance interest and to ensure adequate practice to master important concepts and skills</p>	
80.	Teaching and Learning Strategies	
Strategy	<p>-the blackboard</p> <p>-PowerPoint slides</p> <p>-learning (social networking sites: the branch has a spec</p>	

channel that includes video lectures

81. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Build up communication skill with medical staff and patient	Communication with physician and patient counseling.	ppt	Quiz
2	2	Management of anemia	Drugs for anemia and related disorders.	ppt	Quiz
3	2	Treatment of cardiovascular disease part I	Cardiovascular drugs in practice part I.	ppt	Report
4	2	Treatment of cardiovascular disease part II	Cardiovascular drugs in practice part II.	ppt	Quiz
5	2	Treatment of cardiovascular disease part III	Cardiovascular drug in practice part III.	ppt	Quiz
6	2	Management of asthma and COPD	Drugs for asthma and COPD in practice.	ppt	Report
7	2	Uses and types of antibiotics part I	Antimicrobial drugs in practice part I.	ppt	Quiz.
					Med term exam
8	2	Uses and types of antibiotics part II	Antimicrobial drugs in practice part II.	Ppt	Quiz
9	2	Uses and types of antibiotics part III	Antimicrobial drugs in practice part III.	ppt	Report
10	2	Pharmacy practice knowledge part I	Collective practice number I.	Ppt	Quiz
					Final exam

82. Course Evaluation

Laboratory degree= 20 degree(10 degree final +10 degree from- daily preparation, daily oral, monthly, or written exams, reports

83. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Roger Walker, Clive Edwards (ed) Clinical Pharmacy & Therapeutics
Main references (sources)	: Roger Walker, Clive Edwards (ed) Clinical Pharmacy & Therapeutics
Recommended books and references (scientific journals, reports...)	Articles
Electronic References, Websites	World health organization FDA (U.S. Food and Drug Administration)

Course Description Form

84.	Course Name: Theory Therapeutic drugs monitoring
85.	Course Code:
86.	Semester / Year: Semester 2\ fifth years
87.	Description Preparation Date: 2025
88.	Available Attendance Forms: course system
89.	Number of Credit Hours (Total) / Number of Units (Total): theory 2
90.	Course administrator's name (mention all, if more than one name)
<p>Name: Muhanad abdulshahib Email: Muhanad.abdulshahib@nahrainuniv.edu.iq</p>	
91.	Course Objectives
Course Objectives	<p>1- The present course enables students to learn how to select the most appropriate drugs for an individual, recommend the dosage regimen that is most likely to achieve the desired therapeutic response with minimum risk of toxic effects</p> <p>2- Monitor the effect of a drug, if appropriate.</p> <p>3- The principles of clinical pharmacokinetics will be applied, which are fundamental to the current practice of clinical pharmacy and may be more significant as pharmacists expand their roles into prescribing</p>
92.	Teaching and Learning Strategies
Strategy	By giving theoretical, practical and practical lectures and assigning small groups to create educational scenarios

-Simulate the work of a pharmacist in pharmacies

93. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	study of the absorption, distribution, Metabolism, and excretion of drugs	Review of basic pharmacokinetic (PK) and pharmacodynamics (PD)	ppt	Quiz
2	3	Clinical pharmacokinetic dosage calculations are conducted using the easiest possible equations and methods.	Clinical PK equations and calculations	ppt	Report
3	3	change the pharmacokinetics of the drug and warrant dosage modification	Clinical PK in special population and cases	ppt	Quiz
4	2	Study The conventional method of dosing aminoglycoside antibiotics	Clinical PK/PD for Aminoglycosides	ppt	Report
5	2	Study conc., Distribution steady state of vancomycin	clinical PK/PD for Vancomycin	ppt	Quiz
6	2	Study Digoxin serum concentrations and PK in different dosage form	Clinical PK/PD for Digoxin	ppt	Report
					Med term exam
7	3	Study phenytoin serum concentrations and PK in different dosage form	Clinical PK/PD for Phenytoin	ppt	Quiz
8	3	Study anticonvulsants serum concentrations and PK	Clinical PK/PD for other Anticonvulsants (e.g., Carbamazepine, Valproic Acid, Phenobarbitone/Primidone, Ethosuxsimide)	ppt	Report
9	2	Study conc., Distribution steady state of theophylline	Clinical PK/PD for Theophylline	ppt	Quiz

10	2	Study immunosuppressants serum concentrations and PK	Clinical PK/PD for Immunosuppressants (e.g., Cyclosporine, Tacrolimus)		Report
11	2	Study cardiovascular agents serum concentrations and PK	Clinical PK/PD for other Cardiovascular agents (e.g., Lidocaine, Procainamide/N-Acetyl Procainamide)	ppt	Quiz
12	4	Study lithium anticancer and anticoagulants serum concentrations and PK	Clinical PK/PD of other drugs (e.g., Lithium), Anticancer agents, and Anticoagulants	ppt	Report
					Final exam

94. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc
 Midterm exam 15 degree + 5 degree daily preparation, daily oral, monthly, or written exams, reports
 Laboratory degree= 20 degree
 Final exam = 60 degree

95. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Applied Clinical Pharmacokinetics, Second Edition, 2008 by Larry A. Bauer. Additional references include but not limited to the following: Clinical Pharmacokinetics Concepts and Applications, Third Edition, 1995 by Malcolm Rowland and Thomas Tozer
Main references (sources)	Applied Clinical Pharmacokinetics, Second Edition, 2008 by Larry A. Bauer. Additional references include but not limited to the following: Clinical Pharmacokinetics Concepts and Applications, Third Edition, 1995 by Malcolm Rowland and Thomas Tozer;
Recommended books and references	Articles

(scientific journals, reports...)	
Electronic References, Websites	World health organization FDA (U.S. Food and Drug Administration)

Course Description Form

96.	Course Name: Practical Therapeutic drugs monitoring				
97.	Course Code:				
98.	Semester / Year: semester 2\ fifth years				
99.	Description Preparation Date: 2025				
100.	Available Attendance Forms: course system				
101.	Number of Credit Hours (Total) / Number of Units (Total): laboratory				
1					
102.	Course administrator's name (mention all, if more than one name)				
Name: Ass. Le. Mohammed murtaadha Hussein					
Email: Muhammed.murtadha@nahrainuniv.edu.iq					
103.	Course Objectives				
Course Objectives			1-Improve the practice of students in the application of pharmacokinetics in clinical setting 2-Training in dose individualization in spec patients' groups		
104.	Teaching and Learning Strategies				
Strategy	-By giving theoretical, practical and practical lectures and assigning small groups to create educational scenarios -Simulate the work of a pharmacist in pharmacies				
105. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	2	Food effect on drug absorption	Effects of food on drug disposition	Ppt	Quiz
2	2	Doses in elderly patients	Dosing of drugs in the elderly	Ppt	Report
3	4	Doses in obese patients	Individualization of the dosage for obese patients	Ppt	Quiz
4	4	Pediatric A,D,M,E	Pediatric pharmacokinetics	Ppt	Report
5	2	Training	Review and tutorial	Ppt	Quiz
6	2	Doses of anticancer chemotherapy	Dose individualization for high dose anti-cancer chemotherapy	Ppt	Report
7	4	Carbamazepine TDM	Therapeutic drug monitoring of carbamazepine	Ppt	Quiz
8	4	Cyclosporine TDM	Therapeutic drug monitoring of cyclosporine	Ppt	Report
9	4	Psychotropic medicines TDM	Therapeutic drug monitoring of psychotropic agents	Ppt	Quiz
10	2	Training	Review and tutorial	Ppt	
					Final exam

106. Course Evaluation

Laboratory degree= 20 degree (10 degree final +10 degree from- daily preparation, daily oral, monthly, or written exams, reports

107. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Applied Clinical Pharmacokinetics Second Edition, 2008 by Larry A. Bauer.
Main references (sources)	Additional references include but not limited to the following:
Recommended books and references (scientific journals, reports...)	Clinical Pharmacokinetics Concepts Applications, Third Edition, 1995 by Malcolm Rowland and Thomas Tozer;
Electronic References, Websites	Rowland and Thomas Tozer;

Course Description Form

108.	Course Name: Pharmacoeconomy
109.	Course Code:
110.	Semester / Year: Semester 2\ fifth years
111.	Description Preparation Date: 2025
112.	Available Attendance Forms: Course system
113.	Number of Credit Hours (Total) / Number of Units (Total): Theory 2
114.	Course administrator's name (mention all, if more than one name)
<p>Name: Ass. Le. Mohammed murtaadha Hussein Email: Muhammed.murtadha@nahrainiv.edu.iq Name: Le. Dr. Saba hameed Email: dr.saba.hameed@nahrainiv.edu.iq</p>	
115.	Course Objectives
<p>Course Objectives</p>	<p>1- The present course will give students basic understanding of the tools needed to asses the costs and outcomes medications and pharmaceutical care services</p> <p>2- It will enable participants to evaluate pharmaco-economic and quality of life literat for the purpose of rational decision-making.</p> <p>3- Students will be exposed to the dru focused approaches to pharmaco-economic research and the fundamentals of quality-of-research.</p>
116.	Teaching and Learning Strategies
Strategy	-By giving theoretical, practical and practical lectures

and assigning small groups to create educational scenarios
-Simulate the work of a pharmacist in pharmacies

117. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	assessment of economic evaluation of drug used in care plane and other medical services	Course overview & basic principle of pharmacoeconomics	ppt	Quiz
2	6	Evaluation of cost analysis	Cost analysis	ppt	Report
3	2	Evaluation of Cost effectiveness analyses (CEA	Cost effectiveness analyses (CEA).	ppt	Quiz
4	2	Evaluation of Cost utility analyses (CUA).	Cost utility analyses (CUA).	ppt	Report
5	2	E Cost-benefit analysis (CBA)valuation of	Cost-benefit analysis (CBA)	ppt	Quiz
					Med term exam
6	2	Evaluation of Critical assessment of economic evaluation	Critical assessment of economic evaluation	Ppt	Report
7	2	Evaluation of Drug-focused versus disease-focused framework for Conducting pharmacoeconomic analyses.	Drug-focused versus disease-focused framework for Conducting pharmacoeconomic analyses.	ppt	Quiz
8	2	Evaluation of epidemiology	Introduction to epidemiology.	ppt	Quiz
9	2		Project presentation.	ppt	Report
10	2		Project presentation.		Report
					Final exam

118. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

Midterm exam 25degree + 5-degree daily preparation, daily oral, monthly, or written exams, reports Final exam = 70 degree	
119. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	: Bootman JL, Townsend RJ, McGhan WF, (Eds.), Principles of Pharmacoeconomics, 2nd ed., Harvey Whitney Books Company, Cincinnati, Oh, latest edition
Main references (sources)	: Bootman JL, Townsend RJ, McGhan WF, (Eds.), Principles of Pharmacoeconomics, 2nd ed., Harvey Whitney Books Company, Cincinnati, Oh, latest edition
Recommended books and references (scientific journals, reports...)	Articles
Electronic References, Websites	World health organization FDA (U.S. Food and Drug Administration)

Course Description Form

120.	Course Name: Therapeutics II	
121.	Course Code:	
122.	Semester / Year: Semester 2\ fifth years	
123.	Description Preparation Date: 2025	
124.	Available Attendance Forms: course system	
125.	Number of Credit Hours (Total) / Number of Units (Total): theory 2	
126.	Course administrator's name (mention all, if more than one name)	
	<p>Name: Le. Dr. Saba hameed Email: dr.saba.hameed@nahrainiv.edu.iq Name: Muhanad abdulsahib Email: Muhanad.abdulsahib@nahrainuniv.edu.iq</p>	
127.	Course Objectives	
	Course Objectives	<p>1- To improve the knowledge and practice of students in the clinical application of drugs in the treatment of diseases and disorders in different organ systems</p> <p>2- Enable students to integrate clinical pharmacy practice with other health care providers in the clinical setting.</p>
128.	Teaching and Learning Strategies	
129.		
	Strategy	<p>-By giving theoretical, practical and practical lectures and assigning small groups to create educational scenarios</p> <p>-Simulate the work of a pharmacist in pharmacies</p>

130. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Disorders of thyroid and parathyroid glands	Thyroid and parathyroid disorders	ppt	Quiz
2	1	Types and uses of contraceptives	Contraception	ppt	Report
3	1	Endometriosis management	Endometriosis	ppt	Quiz
4	1	Menstrual disorders	Menstruation related disorders	ppt	Report
5	2	HRT in women	Hormonal replacement therapy (HRT)	ppt	Quiz
6	2	CA treatment and evaluation	Cancer treatment and chemotherapy	ppt	Report
7	2	Leukemias types and management	Leukemias	ppt	Quiz.
8	2	Lymphoma management	Lymphomas and Multiple myeloma	Ppt	Quiz
9	2	Management of breast CA	Breast and prostate cancers	Ppt	Report
10	1	Chemotherapy adverse effect	Adverse effects of chemotherapy	Ppt	Quiz
					Med term exam
11	2	HIV management	Human immunodeficiency virus	Ppt	Quiz
12	1	Disorders of adrenal glands	Adrenal gland disorders	Ppt	Report
13	1	Disorders of pituitary glands	Pituitary gland disorders	Ppt	Quiz
14	1	Treatment of Alzheimer disease	Alzheimer's disease	Ppt	Report
15	2	Schizophrenia management	Schizophrenia	Ppt	Quiz
16	2	Depressive disorders treatments	Depressive disorders	Ppt	Report
17	1	Anxiety disorders management	Anxiety disorders	Ppt	Quiz
18	1	Sleep disorders management	Sleep disorders	Ppt	Report
19	2	Bipolar disorders management	Bipolar disorders	Ppt	Quiz
20	1	colorectal cancer management	colorectal cancer	Ppt	Report
					Final exam

131. Course Evaluation					
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc Midterm exam 25degree + 5-degree daily preparation, daily oral, monthly, or written exams, reports Final exam = 70 degree					
132. Learning and Teaching Resources					
Required textbooks (curricular books, if any)		Roger Walker, Clive Edwards (eds), Clinical Pharmacy & Therapeutics. Barbara G.Wells & Joseph T. Diriro, Pharmacotherapy hand book 7th Edition			
Main references (sources)		Roger Walker, Clive Edwards (eds), Clinical Pharmacy & Therapeutics. Barbara G.Wells & Joseph T. Diriro, Pharmacotherapy hand book 7th Edition			
Recommended books and references (scientific journals, reports...)		Articles			
Electronic References, Websites		World health organization FDA (U.S. Food and Drug Administratio			

Course Description Form

1. Course Name: Theory Advanced pharmacotherapy I	
2. Course Code:	
3. Semester / Year: semester 1 \ Master degree / research stage	
4. Description Preparation Date:2025	
5. Available Attendance Forms: course system	
6. Number of Credit Hours (Total) / Number of Units (Total): theory 2	
7. Course administrator's name (mention all, if more than one name)	
<p>Name: Le. Dr. Saba hameed Email: dr.saba.hameed@nahrainiv.edu.iq Name: Muhanad abdulsahib Email: Muhanad.abdulsahib@nahrainuniv.edu.iq</p>	
8. Course Objectives	
Course Objectives	<p>1- To improve the knowledge and practice of students in the clinical application of drugs to the treatment of diseases and disorders in different organ systems</p> <p>2- Help students integrate clinical pharmacy practice with other health care providers in the clinical settings.</p>
9. Teaching and Learning Strategies	
Strategy	<p>-the blackboard -PowerPoint slides -learning (social networking sites: the branch has a special channel that includes video lectures)</p>

24. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Management of arrhythmias	Pharmacotherapy of Cardiovascular Disorders: arrhythmias	ppt	Quiz
2	2	Management of venous thromboembolism	Pharmacotherapy of Cardiovascular Disorders: venous thromboembolism	ppt	Quiz
3	2	Management of shock	Pharmacotherapy of Cardiovascular Disorders: shock	ppt	Report
4	3	Management of asthma and COPD	Pharmacotherapy of Respiratory disorders: Asthma and COPD.	ppt	Quiz.
5	2	Parenteral nutrition and enteral nutrition	Drug therapy in used in parenteral and enteral nutrition	ppt	Quiz
6	2	Management of HIV	Pharmacotherapy in Infectious disease HIV drug therapy		Report
7	2	Management of infection in immunocompromised patients	Drug therapy in infection in immunocompromised patients	ppt	Quiz
8	1	Management of sepsis and septic shock	Drug therapy in sepsis and septic shock		Quiz
9					Mid term exam
10	2	Management of menstrual disorder	Drug therapy in menstruation related disorders; contraception.	Ppt	Quiz
11	2	Uses of contraception	Drug therapy in contraception.	Ppt	Report
12	2	Geriatric medicine and long-term facilities	Drug therapy in Geriatric medicine	ppt	Quiz
13	2	Pharmacotherapies and personalized medicine	Drug therapy in personalized medicine.	Ppt	Quiz

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc
 Midterm exam 25degree + 5-degree daily preparation, daily oral, monthly, or written exams, reports
 Final exam = 70 degree

10. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Marie A. Chisholm-Burns, Terry L. Schwinghamme (eds) Pharmacotherapy Principles & Practice 15 ed .
Main references (sources)	Applied Therapeutics: The Clinical Use of Drugs, 12e CAROLINE S. ZEIND, MICHAEL G. CARVALHO, JUDY CHENG, KATHY ZAIKEN, TRISHA LAPOINTE
Recommended books and references (scientific journals, reports...)	Articles
Electronic References, Websites	World health organization

Course Description Form

1. Course Name: Theory Advanced pharmacotherapy II	
2. Course Code:	
3. Semester / Year: 2 ND semester 1 \ Master degree / research stage	
4. Description Preparation Date:2025	
5. Available Attendance Forms: course system	
6. Number of Credit Hours (Total) / Number of Units (Total): theory 2	
7. Course administrator's name (mention all, if more than one name)	
<p>Name: Le. Dr. Saba hameed Email: dr.saba.hameed@nahrainiv.edu.iq Name: Muhanad abdulsahib Email: Muhanad.abdulsahib@nahrainuniv.edu.iq</p>	
8. Course Objectives	
Course Objectives	<p>1- To improve the knowledge and practice of students in the clinical application of drugs in the treatment of diseases and disorders in different organ systems</p> <p>2- Enable students to integrate clinical pharmacy practice with other health care providers in the clinical setting.</p>
9. Teaching and Learning Strategies	
10.	
Strategy	<p>-By giving theoretical, practical and practical lectures and assigning small groups to create educational scenarios</p> <p>-Simulate the work of a pharmacist in pharmacies</p>

11. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Disorders of thyroid and parathyroid glands	Thyroid and parathyroid disorders	ppt	Quiz
2	2	Diabetes melilites	Treatment of Diabetes melilites	ppt	Report
3	2	Renal disorder	Acute kidney injury and end stage renal disease.	ppt	Quiz
4	2	Treatment by Hemodialysis and peritoneal dialysis	Hemodialysis and peritoneal dialysis	ppt	Report
5	2	Bone and joints disorders	Osteoporosis	ppt	Quiz
6	2	Disease of infectious origin	Sexually transmitted diseases	ppt	Report
7	2	Management of SLE	SLE	ppt	Quiz.
8	2	Management of multiple sclerosis	multiple sclerosis	Ppt	Quiz
9	2	Management of rheumatoid arthritis	Rheumatoid arthritis	Ppt	Report
10	2	Bone and joints infections	Bone and joints infections	Ppt	Quiz
					Med term exam
12	1	Treatment of Alzheimer disease	Alzheimer's disease	Ppt	Report
12	1	Treatment of Parkinson disease	Parkinson disease		
13	2	Schizophrenia management	Schizophrenia	Ppt	Quiz
14	2	Depressive disorders treatments	Depressive disorders	Ppt	Report
15	1	Anxiety disorders management	Anxiety disorders	Ppt	Quiz
15	1	Bipolar disorder management	Bipolar disorder	Ppt	Report
16	2	Epilepsy and status epilepticus	Epilepsy and status epilepticus	Ppt	Quiz
					Final exam

12. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc Midterm exam 25degree + 5-degree daily preparation, daily oral, monthly, or written exams, reports Final exam = 70 degree	
13. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Marie A. Chisholm-Burns, Terry L. Schwinghamme (eds), Pharmacotherapy Principles & Practice 15 ed .
Main references (sources)	Applied Therapeutics: The Clinical Use of Drugs, 12 CAROLINE S. ZEIND, MICHAEL CARVALHO, JUDY W. CHENG, KAT ZAIKEN, TRISHA LAPOINTE
Recommended books and references (scientific journals, reports...)	Articles
Electronic References, Websites	World health organization FDA (U.S. Food and Drug Administratic