

Republic of Yemen
Ministry of Higher Education & Scientific Research
21 September University for Medicals and Applied Sciences



Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of

Pharmacology 1

Course Code. (02.03.236)

2022



T4: This Template is Developed and Approved by CAQA-Yemen, 2023

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Dr. Hassan Al Mahbashi	Dr. Ali Alyahawi	Dr. ----.....	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

I. General Information:

1.	Course Title:	Pharmacology 1			
2.	Course Code:	02.03.236			
3.	Credit Hours:	Credit Hours	Theory Contact Hours		Practical Contact Hours
			Lecture	Tutorial/Seminar	Lab Clinical
		2	2		-- --
4.	Level/ Semester at which this Course is offered:	2 nd Level / 2 nd Semester			
5.	Pre –Requisite (if any):				
6.	Co –Requisite (if any):	-			
7.	Program (s) in which the Course is Offered:	Bachelor of Clinical Pharmacy & Pharm. D			
8.	Language of Teaching the Course:	English			
9.	Location of Teaching the Course:	Faculty of Clinical Pharmacy			
10.	Prepared by:	Prof. Hassan Al-Mahbashi			
11.	Date and Number of Approval by Council:				

II. Course Description:

This course will provides students with a basic concepts of pharmacology and pharmacokinetics, pharmacodynamics . pharmacology of autonomic nervous system (ANS), regarding their mechanism of action, biotransformation, side effects, contraindications and their clinical uses. . Also this course will provides the students a general aspects of autacoids and NSAID .



III. Course Intended Learning Outcomes (CILOs) : Upon successful completion of the course, students will be able to:		Referenced PILOs	
A. Knowledge and Understanding:		I, P or M/A	
a1	Explain the principles of pharmacology including pharmacokinetic and adverse reactions and drug -drug interactions.		A1
a2	Describe the pharmacological principles of NSAID drugs and drugs used for disorders of autonomic nervous system.		A5
B. Intellectual Skills:			
b1	Categorize, the drugs used in the treatment of ANS disorders according to their mechanism.		B2
b2	Choose, a suitable dosage form of drugs according to diseases cases.		B4
C. Professional and Practical Skills:			
c1	Classify the different types of drug- drug interactions.		C4
c2	Recognize the drugs that used in the treatment of inflammation and ANS disorders.		C4
D. Transferable Skills:			
d1	Use the new technology to obtain subject specific information, and to develop lifelong learning skills.		D3
d3			
I= Introduced, P=Practiced or M/A= Mastered/Advanced			

(A) Alignment of Course Intended Learning Outcomes (Knowledge and Understanding) to Teaching Strategies and Assessment Methods:			
Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
a1	Explain the principles of pharmacology including pharmacokinetics , pharmacokinetics and adverse reactions and drug -drug interactions.	- Lecture - Instructor – student Interactive - Office hour	- Exam - Assignment - Quiz
a2	Describe the pharmacological principles of NSAID drugs and drugs used for disorders of autonomic nervous system .	- Lecture - Instructor – student Interactive - Office hour	- Exam - Assignment - Quiz
(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:			

Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
b1	Categorize , the drugs used in tth treatment of ANS disorders according to their mechanism .	- Lecture - Instructor – student Interactive - Exercises - Solving Problem Methods	- Problem-Solving Exercises. - Assignment - Quiz
b2	Choose , a suitable dosage form of drugs according to diseases cases .	- Lecture - Instructor – student Interactive - Exercises - Solving Problem Methods	- Problem-Solving Exercises. - Assignment - Quiz
(C) Alignment of Course Intended Learning Outcomes (Professional and Practical Skills) to Teaching Strategies and Assessment Methods:			
Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
c1	Classify the different types of drug-drug interactions.	- Lecture - Instructor – student Interactive - Self-Learning	- Exam - Assignment - Quiz
c2	Recognize the drugs that used in the treatment of inflammation and ANS disorders .	- Lecture - Instructor – student Interactive - Self-Learning	- Exam - Assignment - Quiz
(D) Alignment of Course Intended Learning Outcomes (Transferable Skills) to Teaching Strategies and Assessment Methods:			
Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
d1	Use the new technology to obtain subject specific information, and to develop lifelong learning skills.	- Self-Learning - Seminar - Exercises	- Presentation - Assignment - Quiz
d2			

IV. Course Contents:

A. Theoretical Aspect:

Order	Units/Topics List	Learning Outcomes	Sub Topics List	Number of Weeks	Contact Hours
1	Introduction	a1, b1, c1, c2	- Definition - Sources of drugs - Methods of administration - Pharmaceutical dosage forms of drugs - Drug prescription	1	2
2	Pharmacokinetics	a1, a2, b1, b2, c1, c2, d1	- Absorption - Distribution - Metabolism - Excretion - Factors affecting kinetics of drugs	2	4
3	Pharmacodynamics	a1, a2, b1, b2, c1, c2, d1	- Mechanism of drug action - Types of ligands - Drug receptors inter action. - Factors affecting drug's efficacy - Types of adverse drug action - Drug -drug interaction	3	6
4	Midterm exam	a1, a2, b1, b2, c1, c2, d1	- 7th	1	2
5	Pharmacology of autonomic nervous system	a1, a2, b1, b2, c1, c2, d1	- Function of ANS - Parasympathomimetic drugs - Parasympatholytic drugs - Sympathomimetic agents. - Sympatholytic drugs .	5	10
6	Autacoid	a1, a2, b1, b2, c1, c2, d1	- Histamine and antihistamine drugs - Serotonin agonist and antagonist - Eicosanoids and prostaglandins - NSAID	3	6
7	Final exam	a1, a2, b1, b2, c1, c2, d1		1	2
Number of Weeks /and Units Per Semester				16	32

VII. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	Assignment 1 homework	6 th	2.5	a1, a2, b1, b2, c1, c2,
2	Assignment 2: problem solve	12 th	2.5	a1, a2, b1, b2, c1, c2, d1
Total				5

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	6th, 12 th	5	5%	a1, a2, b1, b2, c1, c2, d1
2	Quiz 1	9 th	2.5	2.5%	a1, a2, b1, b2, c1, c2, d1
3	Midterm Exam (Theory)	Week 7	20	20%	a1, a2, b1, b2, c1, c2, d1
4	Quiz 2	14 th	2.5	2.5%	a1, a2, b1, b2, c1, c2, d1
5	Final Exam (Theory)	Week 16	70	70%	a1, a2, b1, b2, c1, c2, d1
Total			100	100%	

IX. Learning Resources:

1- Required Textbook(s):

1- Required Textbook(s) Lippincott's Illustrated Review of Pharmacology; 7th ed.; Richard A Harvey & Pamela C Champe; Lippincott's Williams & Wilkins; 2018.

2- Essential References.

1 - -Basic and clinical pharmacology; 15th edition; Bertram G. Katzung; McGraw Hill Medical Company; 2020.

3- Electronic Materials and Web Sites etc.

1 -<https://pubmed.ncbi.nlm.nih.gov/>

X. Course Policies: (Based on the Uniform Students' By law (2007))

1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality:



	No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Plan (Syllabus) of **Pharmacology 1**

Course Code. 02.03.236

I. Information about Faculty Member Responsible for the Course:						
Name of Faculty Member:	Dr. Hassan Al-Mahbashi			Office Hours		
Location & Telephone No.:						
E-mail:				SAT	SUN	MON TUE WED THU

2022

II. Course Identification and General Information:

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2.	Course Code:	02.03.236			
3.	Credit Hours:	Credit Hours	Theory Contact Hours		Practical Contact Hours
			Lecture	Tutorial /Seminar	Lab
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IV. Course Intended Learning Outcomes (CILOs) :

Upon successful completion of the Course, student will be able to:

A. Knowledge and Understanding:

a1	Explain the principles of pharmacology including pharmacokinetics , pharmacokinetics and adverse reactions and drug -drug interactions.
a2	Describe the pharmacological principles of NSAID drugs and drugs used for disorders of autonomic nervous system .

B. Intellectual Skills:

b1	Categorize , the drugs used in tth treatment of ANS disorders according to their mechanism .
b2	Choose , a suitable dosage form of drugs according to diseases cases .

C. Professional and Practical Skills:

c1	Classify the different types of drug- drug interactions.
c2	Recognize the drugs that used in the treatment of inflammation and ANS disorders .

D. Transferable Skills:

d1	Use the new technology to obtain subject specific information, and to develop lifelong learning skills.
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V. Course Contents:

A. Theoretical Aspect:

خطأ! لم يتم العثور على مصدر المرجع.

Order	Units/Topics List	Learning Outcomes	Sub Topics List	Number of Weeks	Contact Hours
1	Introduction	a1, b1, c1, C2	- Definition - Sources of drugs - Methods of administration - Pharmaceutical dosage forms of drugs - Drug prescription	1	2
2	Pharmacokinetics	a1, a2, b1, b2, c1, c2, d1, d2	- Absorption - Distribution - Metabolism - Excretion - Factors affecting kinetics of drugs	2	4
3	Pharmacodynamics	a1, a2, b1, b2, c1, c2, d1	- Mechanism of drug action - Types of ligands - Drug receptors inter action. - Factors affecting drug's efficacy	3	6



			- Types of adverse drug action - Drug -drug interaction		
4	Midterm exam	a1, a2, b1, b2, c1, c2, d1	- 7 th	1	2
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7	Final exam	a1, a2, b1, b2, c1, c2, d1		1	2
Number of Weeks /and Units Per Semester				16	32

VI. Teaching Strategies of the Course:

- Lecture
- Instructor – student Interactive
- Exercises
- Presentation
- Office hours
- Seminar
- Assignment
- Self-Learning

VII. Assessment Methods of the Course:

خطأ! لم يتم العثور على مصدر المرجع.

- Assignments
- Quiz
- Exam
- Oral Presentation

VIII. Assignments:

No.	Assignments	Week Due	Mark
1	Assignment 1 homework	6th	2.5
2	Assignment 2: problem solve	12th	2.5
Total			

IX. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
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5	Final Exam (Theory)	Week 16	70	70%	a1, a2, b1, b2, c1, c2, d1
Total			100	100%	

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