

Course Description Form

1. Course Name:	
Pharmacology I	
2. Course Code:	
Phpht26-3212	
3. Semester / Year:	
Second semester-2025/2026	
4. Description Preparation Date:	
1/10/2025	
5. Available Attendance Forms:	
Excel sheets	
6. Number of Credit Hours (Total) / Number of Units (Total)	
45 hour/3 units	
7. Course administrator's name (mention all, if more than one name)	
Theoretical	
Name: Assistant Professor Fawaz Abdulghani Mustaffa Email: : Fawaz.Alassaf@uomosul.edu.iq Name: Assistant Professor Ammar Abdulrahman Younis Email: ammara@uomosul.edu.iq Name: Assistant Professor Adnan Ali Zainal Email: adnan.zainal2010@uomosul.edu.iq Name: Lecturer. Dr.Mohammed Daowd Mahmood Email: Mohameddaowd@uomosul.edu.iq Name: Lecturer. Dr.Aseel Abdulelah Abdulrahman Email: Aseel.ahmed@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	<ul style="list-style-type: none">● Learn the basic concepts of pharmacological science, fields and clinical applications.● Understanding the principles of absorption, distribution, metabolism, and excretion in addition to analyzing the relationship between the dose and response.● Interpretation of the effect of medications on the autonomic nervous system and its cholinergic and adrenergic parts.● Learn about the drugs used against viruses, fungi, parasites and worms.● Analysis of the pharmacological interactions, side effects and making safe and effective treatment decisions.

9. Teaching and Learning Strategies

Strategy	<ul style="list-style-type: none"> • Lectures and Interactive Presentations • Case-Based Learning • Interactive Workshops and Seminars • Self-Directed Learning and Research Projects • Different Assessment Strategies
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	A1 to learn the student the concept of general pharmacology B1 to analyze the pharmacological interactions and the side effects of drugs.	General Introduction to Pharmacology	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams
1-2	4	A2 To explain the factors that affect the mechanism of drug actions in various clinical cases and the relationship between the drug doses and their effects B1 to analyze the pharmacological interactions and the side effects of drugs.	Pharmacokinetics	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams
3	4	A1 to learn the student the concept of general pharmacology A2 To explain the factors that affect the mechanism of drug actions in	Drug Receptor Interaction and Pharmacodynamics	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams

		<p>various clinical cases and the relationship between the drug doses and their effects</p> <p>B1 to analyze the pharmacological interactions and the side effects of drugs.</p>			
4	2	<p>A1 to learn the student the concept of general pharmacology</p> <p>A2 To explain the factors that affect the mechanism of drug actions in various clinical cases and the relationship between the drug doses and their effects.</p> <p>B1 to analyze the pharmacological interactions and the side effects of drugs.</p>	The autonomic nervous system (ANS)	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams
5-6	6	<p>A1 to learn the student the concept of general pharmacology</p> <p>A2 To explain the factors that affect the mechanism of drug actions in various clinical cases and the relationship between the drug doses and their effects.</p> <p>A3 To understand the mechanism of cholinergic drug actions</p>	Cholinergic system	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams

		<p>B1 To analyze the pharmacological interactions and the side effects of drugs.</p> <p>C1 To use this information about the pharmacology and the mode of drug actions and their side effects, and employ it in planning an effective and safe treatment that is proportional to the clinical condition.</p>			
7-8	6	<p>A1 to learn the student the concept of general pharmacology</p> <p>A2 To explain the factors that affect the mechanism of drug actions in various clinical cases and the relationship between the drug doses and their effects.</p> <p>A3 To understand the mechanism of cholinergic drug actions</p> <p>B1 To analyze the pharmacological interactions and the side effects of drugs.</p> <p>C1 To use this information about the pharmacology and the mode of drug actions and their side effects, and employ it in planning an</p>	Adrenergic system	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams

		effective and safe treatment that is proportional to the clinical condition.			
	Mid-term exam				
9	2	A1 to learn the student the concept of general pharmacology A2 To explain the factors that affect the mechanism of drug actions in various clinical cases and the relationship between the drug doses and their effects. B1 to analyze the pharmacological interactions and the side effects of drugs.	Principle of antimicrobial therapy	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams
9-10	4	A1 to learn the student the concept of general pharmacology A2 To explain the factors that affect the mechanism of drug actions in various clinical cases and the relationship between the drug doses and their effects. A3 To understand the mechanism of cholinergic drug actions B1 To analyze the pharmacological interactions and the	β - lactam and other cell wall synthesis inhibitor antibiotics	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams

		<p>side effects of drugs.</p> <p>C1 To use this information about the pharmacology and the mode of drug actions and their side effects, and employ it in planning an effective and safe treatment that is proportional to the clinical condition.</p>			
11-12	4	<p>A1 to learn the student the concept of general pharmacology</p> <p>A2 To explain the factors that affect the mechanism of drug actions in various clinical cases and the relationship between the drug doses and their effects.</p> <p>A3 To understand the mechanism of cholinergic drug actions</p> <p>B1 To analyze the pharmacological interactions and the side effects of drugs.</p> <p>C1 To use this information about the pharmacology and the mode of drug actions and its side effects, and employ it in planning an effective and safe treatment that is</p>	Protein synthesis inhibitors	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams

		proportional to the clinical condition.			
12-13	3	<p>A1 to learn the student the concept of general pharmacology</p> <p>A2 To explain the factors that affecting the mechanism of drug actions in various clinical cases and the relationship between the drug doses and its effects.</p> <p>A3 To understand the mechanism of cholinergic drug actions</p> <p>B1 To analyze the pharmacological interactions and the side effects of drugs.</p> <p>C1 To use this information about the pharmacology and the mode of drug actions and their side effects, and employ it in planning an effective and safe treatment that is proportional to the clinical condition.</p>	Quinolones, Folate antagonists, and urinary tract antiseptics	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams
13	2	<p>A1 to learn the student the concept of general pharmacology</p> <p>A2 To explain the factors that affect the mechanism of drug actions in various clinical</p>	Antimycobacterial drugs	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams

		<p>cases and the relationship between the drug doses and their effects.</p> <p>A3 To understand the mechanism of cholinergic drug actions</p> <p>B1 To analyze the pharmacological interactions and the side effects of drugs.</p> <p>C1 To use this information about the pharmacology and the mode of drug actions and their side effects, and employed it in planning an effective and safe treatment that is proportional to the clinical condition.</p>			
14	2	<p>A1 to learn the student the concept of general pharmacology</p> <p>A2 To explain the factors that affect the mechanism of drug actions in various clinical cases and the relationship between the drug doses and their effects.</p> <p>A3 To understand the mechanism of cholinergic drug actions</p> <p>B1 To analyze the pharmacological interactions and the</p>	Antifungal drugs	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams

		side effects of drugs.			
14	2	<p>A1 to learn the student the concept of general pharmacology</p> <p>A2 To explain the factors that affect the mechanism of drug actions in various clinical cases and the relationship between the drug doses and their effects.</p> <p>A3 To understand the mechanism of cholinergic drug actions</p> <p>B1 To analyze the pharmacological interactions and the side effects of drugs.</p>	Antiprotozoal drugs	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams
15	2	<p>A1 to learn the student the concept of general pharmacology</p> <p>A2 To explain the factors that affect the mechanism of drug actions in various clinical cases and the relationship between the drug doses and their effects.</p> <p>A3 To understand the mechanism of cholinergic drug actions</p> <p>B1 To analyze the pharmacological interactions and the</p>	Anthelmintic drugs	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	Quizzes and Exams

		side effects of drugs.			
15	1	<p>A1 to learn the student the concept of general pharmacology</p> <p>A2 To explain the factors that affect the mechanism of drug actions in various clinical cases and the relationship between the drug doses and their effects.</p> <p>A3 To understand the mechanism of cholinergic drug actions</p> <p>B1 To analyze the pharmacological interactions and the side effects of drugs.</p> <p>C1 To use this information about the pharmacology and the mode of drug actions and their side effects, and employ it in planning an effective and safe treatment that is proportional to the clinical condition.</p>	Antiviral drugs	<ul style="list-style-type: none"> • Lecture • Self-Directed Learning and Research Projects 	
	Final- term exam				

11. Course Evaluation

Evaluation Breakdown for a Total Score of 100:

- 5M (attendance + quiz)
- 25M Mid-term Theoretical assessment (paper-based exam)
- 70 M Final-term Theoretical assessment (paper-based exam)

Total 100 M

12. Learning and Teaching Resources

Required textbooks	"Lippincott Illustrated Reviews Pharmacology" by Karen Whalen, 7 th edition (2020).
Main references (sources)	"Basic and Clinical Pharmacology" by Bertram G. Katzung, Susan B. Masters, and Anthony J. Trevor.
Recommended books and references (scientific journals, reports...)	➤ "Rang & Dale's Pharmacology" by James M Ritter, Rod J. Flower, and Graeme Henderson "Goodman & Gilman's: The Pharmacological Basis of Therapeutics" by Laurence L. Brunton, Bjorn C. Knollmann, and Randa Hilal-Dandan.
Electronic References, Websites	○ PubMed (https://pubmed.ncbi.nlm.nih.gov/) ○ Medscape (https://www.medscape.com/) ○ UpToDate (https://www.uptodate.com/) ○ Pharmacology Education Project (https://pharmacologyeducation.org/)