

## Course Description Form

1. Course Name:	
Pharmacology II (Theoretical+ Practical)	
2. Course Code:	
Phpht25-414	
3. Semester / Year:	
First semester/2025-2026	
4. Description Preparation Date:	
01/9/2025	
5. Available Attendance Forms:	
Excel sheet	
6. Number of Credit Hours (Total) / Number of Units (Total)	
3 hours Theoretical + 2 hours Practical /4 units	
7. Course administrator's name	
Theoretical	
Name: Prof. Dr. Zeina Abdulmunim Abdulmajeed Email: <a href="mailto:Dr.zeina@uomosul.edu.iq">Dr.zeina@uomosul.edu.iq</a> Name: Assist. Prof Dr. Musab M Khalaf Email: <a href="mailto:Musabph74@uomosul.edu.iq">Musabph74@uomosul.edu.iq</a> Assist. Prof Dr. Hani M Al-Mukhtar Email: <a href="mailto:Hanialmukhtar@uomosul.edu.iq">Hanialmukhtar@uomosul.edu.iq</a> Assist. Prof. Dr. Ghayth M Abdulrazzaq Email: <a href="mailto:ghayth.abdulrazzaq@uomosul.edu.iq">ghayth.abdulrazzaq@uomosul.edu.iq</a> Assist. Prof. Dr. Adnan Ali Zainal Email: <a href="mailto:Adnan.zainal2010@uomosul.edu.iq">Adnan.zainal2010@uomosul.edu.iq</a> Lecturer Dr. Aseel Abdul Ellah Email: <a href="mailto:@uomosul.edu.iq">@uomosul.edu.iq</a> Lecturer Dr. Mohammed Daowd Mahmoud Email: <a href="mailto:Mohameddaowd@uomosul.edu.iq">Mohameddaowd@uomosul.edu.iq</a>	
Practical	
Name: Assist. Prof Dr. Musab M Khalaf Email: <a href="mailto:Musabph74@uomosul.edu.iq">Musabph74@uomosul.edu.iq</a> Assist. Prof Dr. Hani M Al-Mukhtar Email: <a href="mailto:Hanialmukhtar@uomosul.edu.iq">Hanialmukhtar@uomosul.edu.iq</a> Assist. Prof. Dr. Ghayth M Abdulrazzaq Email: <a href="mailto:ghayth.abdulrazzaq@uomosul.edu.iq">ghayth.abdulrazzaq@uomosul.edu.iq</a> Assist. Prof. Dr. Adnan Ali Zainal Email: <a href="mailto:Adnan.zainal2010@uomosul.edu.iq">Adnan.zainal2010@uomosul.edu.iq</a> Lecturer Dr. Aseel Abdul Ellah Email: <a href="mailto:@uomosul.edu.iq">@uomosul.edu.iq</a> Lecturer Dr. Mohammed Daowd Mahmoud Email: <a href="mailto:Mohameddaowd@uomosul.edu.iq">Mohameddaowd@uomosul.edu.iq</a>	
8. Course Objectives	
<b>Course Objectives</b> Basic Knowledge about the pharmacology of drugs used for various systemic diseases including, CNS, CVS,	<ul style="list-style-type: none"> <li>Providing students with theoretical knowledge about the mechanism of action of drugs and the side effects they may cause.</li> </ul>

GIT, and Respiratory system.	<ul style="list-style-type: none"> <li>• Training students and developing their skills in practical aspects of pharmacology.</li> </ul>
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### 9. Teaching and Learning Strategies

<b>Strategy</b>	Theoretical lectures Assessment exams Homework assignments Practical laboratory sessions Discussions
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### 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3+2	A1. The student should understand the mechanism of action of drugs in detail. A2. The student should understand the importance of knowing the clinical uses of drugs.	Introduction to CNS drugs	- In-person lectures - Blended learning -Laboratory experiments	- Written exams - Seminars and discussion
2	3+2	A1. The student should understand the mechanism of action of drugs in detail. A2. The student should understand the importance of knowing the clinical uses of drugs. B1. The student should be aware of the side effects of drugs.	Antidepressant	- In-person lectures - Blended learning -Laboratory experiments.	- Written exams - Seminars and discussion
3	3+2	A1. The student should understand the mechanism of action of drug detail. A2. The student should recognize the importance of knowing the clinical uses of drugs. B1. The student should identify side effects of drugs. B2. The student should analyze interactions between different medications. C1. The student should utilize their knowledge of pharmacology, including the mechanism of action and side effects of drugs, to plan effective and safe treatment regimens that are appropriate for the patient's clinical condition.	Antipsychotics	- In-person lectures - Blended learning -Laboratory experiments	- Written exams - Seminars and discussion
4	3+2	A1. The student should understand the mechanism of action of drug detail. A2. The student should recognize the importance of knowing the clinical uses of drugs. B1. The student should identify side effects of drugs. B2. The student should analyze interactions between different medications. C1. The student should utilize their knowledge of pharmacology, including the	Opioid drugs	- In-person lectures - Blended learning -Laboratory experiments	- Written exams - Seminars and discussion

		mechanism of action and side effects of drugs, to plan effective and safe treatment regimens that are appropriate for the patient's clinical condition.			
5	3+2	A1. The student should understand the mechanism of action of drug in detail. A2. The student should recognize the importance of knowing the clinical uses of drugs. B1. The student should identify the side effects of drugs. B2. The student should analyze drug interactions between different medications. C1. The student should utilize their knowledge of pharmacology, including the mechanism of action and side effects of drugs, to plan effective and safe treatment regimens that are appropriate for the patient's clinical condition.	Anaesthetic drugs	- In-person lectures - Blended learning -Laboratory experiments	- Written exams - Seminars and discussion
6	3+2	A1. The student should understand the mechanism of action of drug in detail. A2. The student should recognize the importance of knowing the clinical uses of drugs. B1. The student should identify the side effects of drugs. B2. The student should analyze drug interactions between different medications. C1. The student should utilize their knowledge of pharmacology, including the mechanism of action and side effects of drugs, to plan effective and safe treatment regimens that are appropriate for the patient's clinical condition.	CNS stimulants	- In-person lectures - Blended learning -Laboratory experiments	- Written exams - Seminars and discussion
7	3+2	A1. The student should understand the mechanism of action of drug in detail. A2. The student should recognize the importance of knowing the clinical uses of drugs. B1. The student should identify the side effects of drugs. B2. The student should analyze drug interactions between different medications. C1. The student should utilize their knowledge of pharmacology, including the mechanism of action and side effects of drugs, to plan effective and safe treatment regimens that are appropriate for the patient's clinical condition.	Anti-Parkinson's drugs	- In-person lectures - Blended learning -Laboratory experiments	- Written exams - Seminars and discussion
8	<b>Mid-term exam</b>				
9	3+2	A1. The student should understand	Antiepileptics	- In-person lectures	- Written exams

		<p>the mechanism of action of drug in detail.</p> <p>A2. The student should recognize the importance of knowing the clinical uses of drugs.</p> <p>B1. The student should identify the side effects of drugs.</p> <p>B2. The student should analyze drug interactions between different medications.</p> <p>C1. The student should utilize their knowledge of pharmacology, including the mechanism of action and side effects of drugs, to plan effective and safe treatment regimens that are appropriate for the patient's clinical condition.</p>		<ul style="list-style-type: none"> <li>- Blended learning</li> <li>-Laboratory experiments</li> </ul>	<ul style="list-style-type: none"> <li>- Seminars and discussion</li> </ul>
10	3+2	<p>A1. The student should understand the mechanism of action of drug in detail.</p> <p>A2. The student should recognize the importance of knowing the clinical uses of drugs.</p> <p>B1. The student should identify the side effects of drugs.</p> <p>B2. The student should analyze drug interactions between different medications.</p> <p>C1. The student should utilize their knowledge of pharmacology, including the mechanism of action and side effects of drugs, to plan effective and safe treatment regimens that are appropriate for the patient's clinical condition.</p>	Sedative & hypnotics drugs	<ul style="list-style-type: none"> <li>- In-person lectures</li> <li>- Blended learning</li> <li>-Laboratory experiments</li> </ul>	<ul style="list-style-type: none"> <li>- Written exams</li> <li>- Seminars and discussion</li> </ul>
11	3+2	<p>A1. The student should understand the mechanism of action of drug in detail.</p> <p>A2. The student should recognize the importance of knowing the clinical uses of drugs.</p> <p>B1. The student should identify the side effects of drugs.</p> <p>B2. The student should analyze drug interactions between different medications.</p> <p>C1. The student should utilize their knowledge of pharmacology, including the mechanism of action and side effects of drugs, to plan effective and safe treatment regimens that are appropriate for the patient's clinical condition.</p>	Antihypertensive drugs	<ul style="list-style-type: none"> <li>- In-person lectures</li> <li>- Blended learning</li> <li>-Laboratory experiments</li> </ul>	<ul style="list-style-type: none"> <li>- Written exams</li> <li>- Seminars and discussion</li> </ul>
12	3+2	<p>A1. The student should understand the mechanism of action of drug in detail.</p> <p>A2. The student should recognize the importance of knowing the clinical uses of drugs.</p> <p>B1. The student should identify the side effects of drugs.</p> <p>B2. The student should analyze</p>	Antianginal drugs	<ul style="list-style-type: none"> <li>- In-person lectures</li> <li>- Blended learning</li> <li>-Laboratory experiments</li> </ul>	<ul style="list-style-type: none"> <li>- Written exams</li> <li>- Seminars and discussion</li> </ul>

		drug interactions between different medications. C1. The student should utilize their knowledge of pharmacology, including the mechanism of action and side effects of drugs, to plan effective and safe treatment regimens that are appropriate for the patient's clinical condition.			
13	3+2	A1. The student should understand the mechanism of action of drug in detail. A2. The student should recognize the importance of knowing the clinical uses of drugs. B1. The student should identify the side effects of drugs. B2. The student should analyze drug interactions between different medications. C1. The student should utilize their knowledge of pharmacology, including the mechanism of action and side effects of drugs, to plan effective and safe treatment regimens that are appropriate for the patient's clinical condition.	Heart failure drugs	- In-person lectures - Blended learning -Laboratory experiments	- Written exams - Seminars and discussion
14	3+2	A1. The student should understand the mechanism of action of drug in detail. A2. The student should recognize the importance of knowing the clinical uses of drugs. B1. The student should identify the side effects of drugs. B2. The student should analyze drug interactions between different medications. C1. The student should utilize their knowledge of pharmacology, including the mechanism of action and side effects of drugs, to plan effective and safe treatment regimens that are appropriate for the patient's clinical condition.	Antiarrhythmic drugs	- In-person lectures - Blended learning -Laboratory experiments	- Written exams - Seminars and discussion
15	3+2	A1. The student should understand the mechanism of action of drug in detail. A2. The student should recognize the importance of knowing the clinical uses of drugs. B1. The student should identify the side effects of drugs. B2. The student should analyze drug interactions between different medications. C1. The student should utilize their knowledge of pharmacology, including the mechanism of action and side effects of drugs, to plan effective and safe treatment	Drugs acting on respiratory system	- In-person lectures - Blended learning -Laboratory experiments	- Written exams - Seminars and discussion

		regimens that are appropriate for the patient's clinical condition.			
16	3+2	<p>A1. The student should understand the mechanism of action of drugs in detail.</p> <p>A2. The student should recognize the importance of knowing the clinical uses of drugs.</p> <p>B1. The student should identify the side effects of drugs.</p> <p>B2. The student should analyze drug interactions between different medications.</p> <p>C1. The student should utilize their knowledge of pharmacology including the mechanism of action and side effects of drugs, to develop effective and safe treatment regimens that are appropriate for the patient's clinical condition.</p>	GIT drugs	<p>- In-person lectures</p> <p>- Blended learning</p> <p>-Laboratory experiments</p>	<p>- Written exams</p> <p>- Seminars and discussion</p>

### 11. Course Evaluation

- 20 M Theoretical assessment; (paper-based mid-term exam + quiz + attendance)
- 20 M practical assessment (attendance + quiz + practice + Homework)
- 60 M paper-based theoretical final exam

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Total 100 M

### 12. Learning and Teaching Resources

Required textbooks	-Lippincott Illustrated Review Pharmacology 6 <sup>th</sup> Edition
Main references (sources)	- Basic and Clinical Pharmacology 16 <sup>th</sup> Edition - Rang and Dale's Pharmacology 10 <sup>th</sup> Edition -Medical Pharmacology at a Glance 9 <sup>th</sup> Edition
Electronic References, Websites	<ul style="list-style-type: none"> <li>• PubMed (<a href="https://pubmed.ncbi.nlm.nih.gov/">https://pubmed.ncbi.nlm.nih.gov/</a>)</li> <li>• Medscape (<a href="https://www.medscape.com/">https://www.medscape.com/</a>)</li> <li>• UpToDate (<a href="https://www.uptodate.com/">https://www.uptodate.com/</a>) Pharmacology Education Project (<a href="https://pharmacologyeducation.org/">https://pharmacologyeducation.org/</a>)</li> </ul>