

Course Syllabus

1	Course title	Pharmacology 1	
2	Course number	1203363	
3	Credit hours	3 (Theory)	
	Contact hours (theory, practical)	3 (Theory)	
4	Prerequisites/corequisites	Prerequisite: Physiology II (0551215)	
5	Program title	BSc. Pharmacy and Pharm D	
6	Program code		
7	Awarding institution	University of Jordan	
8	School	Pharmacy	
9	Department	Department of Biopharmaceutics & Clinical Pharmacy	
10	Course level	Undergraduate	
11	Year of study and semester (s)	2023/2024; First semester of the 3ed year	
12	Other department (s) involved in teaching the course	N/A	
13	Main teaching language	English	
14	Delivery method	Face to face (Synchronous lecturing)	
15	Online platforms(s)	<input checked="" type="checkbox"/> Moodle <input type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....	
16	Issuing/Revision Date	8/10/ 2023	

17 Course Coordinator:



Name: Dr. Rima Hijazeen

Office hours: Announced

Contact hours:

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18 Other instructors:

Name: Prof. Mariam Abdel Jalil

Office hours: Announced

Email: m.abdeljalil01@ju.edu.jo

19 Course Description:

As stated in the approved study plan.

Pharmacology is the study of drugs. The course will cover the important concepts students need to know about the basis of drug action and the pharmacological basis of therapeutics. The first part of the course will deal with general principles of pharmacology, including pharmacodynamics, and pharmacokinetics.

The second part will focus on systemic pharmacology and will involve discussions of major drug classes as they relate to organ systems or major pathophysiological diseases. Topics include:

autonomic drugs, cardiovascular-renal drugs, drugs acting on the blood and drugs used to treat disease of dyslipidemia.

20 Course aims and outcomes:



A- Aims:

- 1) Identify basic principles of pharmacokinetics, pharmacodynamics, molecular processes associated with drug actions and drug interactions and major drug classes as they relate to organ systems or major pathophysiological diseases and discuss representative medications within specific classifications.
- 2) Explain the characteristics of major groups of drugs and selected individual medications acting on the autonomic system and drugs used to treat blood and cardiovascular disorders, in term of the following: mechanism(s) of action; pharmacokinetic properties; therapeutic uses; adverse effects; drug-drug and drug-food interactions.
- 3) Apply gained knowledge in medications acting on the autonomic system and drugs used to treat blood and cardiovascular disorders to explain clinical uses and adverse effects of these agents for treatment of common disease states.
- 4) Collect and interpret information related to medications acting on the autonomic system and drugs used to treat blood and cardiovascular disorders, through browsing the internet based professional web sites and databases.

B- Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

Discriptors	CLO No.	SLOs of the program (PLOs) SLOs of the course (CLOs)	Learner	Problem-Solver	Educator	Communicator	Professional
Knowledge	K1	Identify basic principles of pharmacokinetics, pharmacodynamics, molecular processes associated with drug actions and drug interactions and major drug classes as they relate to organ systems or major pathophysiological diseases					
Skills	S1	Explain the characteristics of major groups of drugs and selected individual medications acting on the autonomic system and drugs used to treat blood and cardiovascular disorders, in term of the following: mechanism(s) of action; pharmacokinetic properties; therapeutic uses; adverse effects; drug-drug and drug-food interactions					
	S2	Apply gained knowledge in medications acting on the autonomic system and drugs used to treat blood and cardiovascular disorders to explain clinical uses and adverse effects of these agents for treatment of common disease states.					

	S3	Inspect, collect and interpret information related to medications acting on the autonomic system and drugs used to treat blood and cardiovascular disorders, through browsing the internet based professional web sites and databases (MEDLINE, e-library).						
	S4	Design education to the patients about the proper use of medications acting on the autonomic system and drugs used to treat blood and cardiovascular disorders and their possible adverse effects						
Competencies	C1	Show responsibility, accountability and commitment by complying with tutor's instructions and relevant university regulations						

21. Topic Outline and Schedule:

Week	Lecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1.1	Topic#1: Introducing the course	K1	Face to Face	E-learning		Exam	Textbook Handout
	1.2	Introduction to pharmacology	K1	Face to Face	E-learning		Exam	Textbook Handout
2	2.1	Topic#2: Pharmacokinetics	K1	Face to Face	E-learning		Exam	Textbook Handout
	2.2	Pharmacokinetics	K1	Face to Face	E-learning		Exam	Textbook Handout
3	3.1	Topic#3: Pharmacodynamics	K1	Face to Face	E-learning		Exam	Textbook Handout
	3.2	Pharmacodynamics	K1	Face to Face	E-learning		Exam	Textbook Handout
4	4.1	Topic#4: Cholinergic	K1,S1-S4	Face to Face	E-learning		Exam	Textbook Handout

		activating drugs						
	4.2	Cholinceptor-activating drugs	S1-S4	Face to Face	E-learning		Exam	Textbook Handout
5	5.1	Topic#5: Cholinceptor-blocking drugs	K1,S1-S4	Face to Face	E-learning		Exam	Textbook Handout
	5.2	Topic#6: Adrenoceptor or activating drugs	K1,S1-S4	Face to Face	E-learning		Exam	Textbook Handout
6	6.1	Adrenoceptor activating drugs	S1-S4	Face to Face	E-learning		Exam	Textbook Handout
	6.2	Topic#7: Adrenoceptor or blocking drugs	K1,S1-S4	Face to Face	E-learning		Exam	Textbook Handout
7	7.1	Adrenoceptor blocking drugs	S1-S4	Face to Face	E-learning		Exam	Textbook Handout
	7.2	Topic#8: Antihypertensive and diuretic agents	K1,S1-S4	Face to Face	E-learning		Exam	Textbook Handout
8	8.1	Antihypertensive and	S1-S4	Face to Face	E-learning		Exam	Textbook

		diuretic agents						Handout
9	9.1	Topic#9: Vasodilators & the treatment of Angina Pectoris	K1,S1-S4	Face to Face	E-learning		Exam	Textbook Handout
	9.2	Vasodilators & the treatment of Angina Pectoris	S1-S4	Face to Face	E-learning		Exam	Textbook Handout
10	10.1	Topic#10: Drugs used in heart failure	K1,S1-S4	Face to Face	E-learning		Exam	Textbook Handout
	10.2	Drugs used in heart failure	S1-S4	Face to Face	E-learning		Exam	Textbook Handout
11	11.1	Drugs used in heart failure	K1,S1-S4	Face to Face	E-learning		Exam	Textbook Handout
	11.2	Topic#11: Dyslipidemia and Antihyperlipidemic Agents	K1,S1-S4	Face to Face	E-learning		Exam	Textbook Handout
12	12.1	Dyslipidemia and	K1,S1-S4	Face to Face	E-learning		Exam	Textbook

		Antihyperlipidemic Agents						Handout	
	12.2	Topic#12: Agents used in disorders of coagulation	K1,S1-S4	Face to Face	E-learning		Exam	Textbook Handout	
13	13.1	Agents used in disorders of coagulation	S1-S4	Face to Face	E-learning		Exam	Textbook Handout	
	13.2	Agents used in disorders of coagulation	S1-S4	Face to Face	E-learning		Exam	Textbook Handout	
14	14.1	Topic#13: Agents Used in Cardiac Arrhythmias	S1-S4	Face to Face	E-learning		Exam	Textbook Handout	
	14.2	Agents Used in Cardiac Arrhythmias	S1-S4	Face to Face	E-learning		Exam	Textbook Handout	

15	15.1	Assignments presentations	S1-S4 C1	Face to Face	E-learning		Oral presentation	Textbook Handout
	15.2	Assignments presentations	S1-S4 C1	Face to Face	E-learning		Oral presentation	Textbook Handout

22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	CLOs	Period (Week)	Platform
Midterm Exam	30	Topics 1-7	K1	8 th week	On campus
Quiz	10	Topic 1-3	K1	5 th week	On campus
Assignment	10	Topic 8	S1-S2 & C1	12 th week	On campus
Final Exam	50	All Topics	K1, S1 – S4	16 th week	On campus

23 Course Requirements

- **students should have**
- Computer
- Internet connection
- Active university account on Moodle (e-learning) website

Active university account on Microsoft Teams

24 Course Policies:

A- Attendance policies:

As per the applicable university regulations

B- Absences from exams and submitting assignments on time:

As per the applicable university regulations



C- Health and safety procedures:

NA

D- Honesty policy regarding cheating, plagiarism, misbehavior:

As per the applicable university regulations

E- Grading policy:

- Midterm exam (30%)
- Course work (20%)
- Final exam (50%)

F- Available university services that support achievement in the course:

Moodle (e-learning) website

Microsoft Teams institutional subscription

e-library, and access to scientific sites

25 References:

A- Required book(s), assigned reading and audio-visuals:

Main Reference:

- Basic & Clinical & Pharmacology, ed. Bertram G. Katzung, Todd W. Vanderah, 14th edition, 2021. McGraw-Hill Medical. ISBN 978-1-260-45231-0
- Basic & Clinical & Pharmacology, ed. Katzung, 14th edition, 2018. McGraw-Hill Medical. ISBN: 978-1-260-28817-9

B- Recommended books, materials, and media:

- Pharmacology: Examination & Board review. Katzung & Trevor, 12th edition, 2019. ISBN 978-1-259-64102-2
- Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th edition, 2018. ISBN 978-1-25-958473-2
- Access Pharmacy: <http://accesspharmacy.mhmedical.com/>
- UpToDate: www.uptodate.com



- Electronic Library of Medicine – Jordan: <http://www.elm.jo/>
- <https://www.drugs.com/>

26 Additional information:

Course Material and Announcements: Students need to use the e-learning page at the JU website in order to get all lecture handouts and guidelines which will be uploaded there.

In addition, course related announcements and exam results will be posted on the e-learning page and it is the responsibility of each student to check the site regularly.

Username and password to access the course on the e-learning page will be provided to students in the beginning of the semester.

Grievance Policy

According to the general policies applied at the University of Jordan for grievance, when there is a complaint or conflict between a student and an academic/staff member or another student, the following procedures must be followed:

1. The student writes a formal complaint describing the situation of conflict to the Dean of the School or the President of the University.
2. Dean or President will first try to resolve the controversy by meeting/listening to both parties.
3. If agreement was not possible, Dean or president forms an investigation committee which will follow, within a specified timeline, the general policies for relevant circumstances. The following points are considered:
 - a. The committee will meet/talk to both parties and witnesses (if applicable) within two weeks of conflict.
 - b. All meetings and discussions are documented according to the university policies.
 - c. Results/ recommendations will be sent to the Dean or President who is responsible for their implementation

Name of Course Coordinator: -----	Signature: -----
Date: ---8 Oct 2023-----	
Head of Curriculum Committee/Department: -----	Signature: -----
Head of Department: -----	Signature: -----
Head of Curriculum Committee/Faculty: -----	Signature: -----
Dean: -----	Signature: -----