Syllabus: Pharmacology (1) (#131702361)
First Semester 2021 /2022

COURSE INFORMATION	
Course Name: Pharmacology(1) (face-to-face education) **Semester:** First **Department:** Clinical Pharmacy & Pharmacy Practice **Faculty:** Pharmaceutical Sciences	**Course Code:** 131702361 **Section:** According to the semester 1, 2 **Core Curriculum**: 2019 Study Plan
Day(s) and Time(s): According to the semester **Classroom:** According to the semester	**Credit Hours:** 3 **Prerequisites**: 1917021253 (Pathophysiology)

COURSE DESCRIPTION

Pharmacology is the study of drugs. This course will cover a brief introduction about pharmacology, pharmacokinetics, pharmacodynamics and receptors. Moreover, this course provides the students with the basic information of the drugs working on the autonomic nervous system (ANS), cardiovascular (CV) system regarding their mechanism of action, biotransformation, side effects, contraindications and their clinical uses. In addition, this course will introduce the students to several diseases affecting the CV system such as hypertension, heart failure, angina and cardiac arrhythmia and the classes of drugs that are available to treat these diseases.

DELIVERY METHODS

The course will be delivered through a combination of active learning strategies. These will include:

- PowerPoint lectures and active classroom-based discussion
- Relevant films and documentaries
- Video lectures

FACULTY INFORMATION

Name	**Dr Abdelrahim Alqudah**
Academic Title:	**Associate Professor**
Office Location:	**Third Floor**
Telephone Number:	**Extension: 3437**
Email Address:	Abdelrahim**@hu.edu.jo**

Office Hours:	According to the semester

REFERENCES AND LEARNING RESOURCES

Required Textbook(s):

1. Katzung, Bertram G. Masters, Susan B. Trevor, Anthony J. ***Basic and clinical pharmacology.*** (McGraw Hill / Medical 14th edition. 2018) ISBN: 978-0-07-176402-5

Suggested Additional Resources:

2. Karen Whalen, Richard Finkel, Thomas A. Panavelil. ***Pharmacology (Lippincott Illustrated Reviews Series)*** (Wolters Kluwer 6th edition 2015) ISBN 978-1-4511-9177-6

Course Objectives

After completion of this course the student will:

1. Develop basic knowledge of pharmacokinetic and pharmacodynamic principles.
2. Identify most commonly used drugs in the major drug categories covered in this course.
3. Develop basic knowledge about drug uses, mechanism of action, characteristics, side effects, interactions, kinetics and contraindications.
4. Develop knowledge of key clinical notes about major drugs and how to administer them.
5. Be able to retrieve relevant information about the drug from trusted online and offline resources.

Course Learning Outcomes

A. Knowledge and Understanding

A1: Differentiate between pharmacodynamics and pharmacokinetics principles, and recognize different types of receptors along with their signal transduction pathways.

A2: Understand the drug development and regulation process, identify the pharmacology of autonomic nervous system and cardiovascular drugs, and distinguish prototype drugs that affect different body systems.

A3: Know the primary resources for pharmacological information, and reflect on the role of the pharmacist in enhancing patient understanding of drug therapy as part of healthcare provision.

B. Essential for Practice and Care (Intellectual Skills):

B.1- Analyze symptoms and relate them to possible side effects of certain drugs.

B.2- Understand the relationship between drug effects and receptor binding, and explain how receptor knowledge aids in drug design and the prediction of effects and side effects.

C. Approach to Practice Pharmacy:

C.1- Identify the uses of drugs covered in the course.

C.2- Identify drug interactions among the medications discussed in the course.

C.3- Describe the predictable side effects of the drugs covered.

D. Personal and Professional Development:
D.1- Effectively communicate with others about the effectiveness and safety of drugs, evaluating information clearly and accurately.

ACADEMIC SUPPORT

It is The Hashemite University policy to provide educational opportunities that ensure fair, appropriate and reasonable accommodation to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their instructor to ensure that their individual needs are met. The University through its Special Need section will exert all efforts to accommodate for individual's needs.

Special Needs Section:

Tel: **00962-5-3903333** **Extension:** **4209**

Location: **Students Affairs Deanship/ Department of Student Welfare Services**

Email: **amalomoush@hu.edu.jo**

amalomoush@staff.hu.edu.jo

COURSE REGULATIONS

Participation

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. *Those exceeding this limit of 15% will receive a failing grade regardless of their performance*. It is a student's responsibility to monitor the frequency of their own absences. **Attendance record begins on the first day of class irrespective of the period allotted to drop/add and late registration. It is a student's responsibility to sign-in; failure to do so will result in a non-attendance being recorded.**

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

On average, students need to spend 15 hrs of study and preparation weekly. At the beginning of the lectures, be on time and don't leave before the end of the lecture without an accepted excuse. **If you missed a class, it is your responsibility to find out about any announcements or assignments you have missed.** For any clarification, please communicate your instructor at her posted office hours or by appointment. Listen well to the lecture, if you have a question, ask your instructor. You will find the course material at the course team after the lecture.

Sharing of course materials is forbidden. No course material including, but not limited to, course outline, lecture hand-outs, videos, exams, and assignments may be shared online or with anyone outside the class. Any suspected unauthorized sharing of materials, will be reported to the university's Legal Affairs Office. If a student violates this restriction, it could lead to student misconduct procedures.

Missed Assessments

In all cases of assessment, students who fails to attend an exam on the scheduled date without prior permission, and/or are unable to provide a medical note, will automatically receive a failure .grade for this part of the assessment

- In cases where a student misses an assessment on account of a medical reason or with prior permission; in line with university regulations an incomplete grade for the specific assessment will be awarded and an alternative assessment or extension can be arranged.

Cheating

Cheating, academic disconduct, fabrication and plagiarism will not be tolerated, and the university policy will be applied. Cheating policy: The participation, the commitment of cheating will lead to applying all following penalties together:

- Failing the subject, he/she cheated at
- Failing the other subjects taken in the same course
- Not allowed to register for the next semester
- The summer semester is not considered as a semester

Student Complaints Policy

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

COURSE ASSESSMENT

Course Calendar and Assessment

Students will be graded through the following means of assessment and their final grade will be calculated from the forms of assessment as listed below with their grade weighting taken into account. The criteria for grading are listed at the end of the syllabus

Assessment	Grade Weighting	Deadline Assessment
First Exam	30%	~ 6th week
Second Exam	30%	~ 10th week
Final Exam	40%	~ 15th /16th week

Description of Exams

Test questions will predominately come from material presented in the lectures. Semester exams will be conducted during the regularly scheduled lecture period. Exam will consist of a combination of multiple choice, short answer, match, true and false and/or descriptive questions.

No make-up exams, homework or quizzes will be given. Only documented absences will be considered as per HU guidelines.

Grades are not negotiable and are awarded according to the following criteria:

Letter Grade	Description	Grade Points
A+	Excellent	4.00
A		3.75
A-		3.50
B+	Very Good	3.25
B		3.00
B-		2.75
C+	Good	2.50
C		2.25
C-		2.00
D+	Pass	1.75
D	Pass	1.50
F	Fail	0.00
I	Incomplete	-

WEEKLY LECTURE SCHEDULE AND CONTENT DISTRIBUTION

"Lecture hours and weeks are approximate and may change as needed"

Note: For the 2 lecture periods per week (S/T, M/W), one lecture period covers 1.5 lecture hours (75 minutes). The course content specifies chapters of the textbook that will be included in exams.

	Topics	Week	No. of lectures
Topic 1	**Introduction:** - General principles of pharmacology - Terminology and general introduction	1	1
Topic 2	**Drug receptors & pharmacodynamics**	1	1
Topic 3	**Pharmacokinetics**	2	2
	Drug biotransformation	3	1
Topic 4	**Drugs affecting the autonomic nervous System:** - Introduction to autonomic pharmacology - Cholinoceptor-activating and Cholinesterase inhibiting drugs	4	2
	-Cholinoceptor-blocking drugs	5	2
	-Adrenoceptor agonists & sympathomimetic drugs	6	2
	-Adrenoceptor antagonist drugs	7	2
Topic 5	**Cardiovascular-Renal Drugs:** - Diuretic agents	8	2
	- Antihypertensive agents	9	2
	-Vasodilators & the treatment of Angina Pectoris -Drugs used in heart failure -Agents used in cardiac arrhythmias	10-11	4
Topic 6	**Drugs used to treat diseases of blood:** -Drugs used in disorders of coagulation	12	2
	- Agents Used in Dyslipidemia	13	2
	-Agents used in anemias, hematopoietic growth factors	14	2
University Final Exams		15+16	

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