The Hashemite University

الجامعـــــــــة الهاشميـــــــــة

School of Pharmaceutical Sciences

كلية العلوم الصيدلانية

Syllabus*: Pharmacology 3

(1917021463**)**

First Semester 2024 /2025

COURSE INFORMATION	
Course Name: Pharmacology 3 (face to face education) **Semester:** First Semester **Department:** Department of clinical pharmacy and pharmacy practice **Faculty: Pharmaceutical Science**	**Course Code:** 1917021463 **Core Curriculum**: 2019 - Pharmaceutical Sciences program study Plan.
Day(s) and Time(s): Sun, Tues. 10:30-12:00, 12:00-1:30, 1:30-3:00 Mon, Wed. 11:00-12:30, 1:30-3:00 **Section:** 5 sections **Classroom:** Pharmacy 111	**Credit Hours:** 3 **Prerequisites**: Pharmacology 2 (131702362)

COURSE DESCRIPTION

Pharmacology is the study of drugs. Pharmacology III course deals with the action, mechanism of action, biotransformation, side effects, clinical uses and contraindications of: gastrointestinal medications, antimicrobial agents, antineoplastic therapy, as well as immunopharmacology and drugs used for dermatological conditions. The course provides students the comprehensive knowledge about drug classes covered in this course and focuses on recognized pharmacotherapy approaches encountered patient's care practice.

DELIVERY METHODS

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

- PowerPoint lectures and active classroom-based discussion including case -solving problems.
- Relevant films and documentaries
- Video lectures

FACULTY INFORMATION

Name	**Dr. Heba Khader**
Academic Title:	**Associate Professor**
Office Location:	School of Pharmaceutical Sciences- Third floor
Telephone Number:	+962(5)-399303333-3443

Email Address:	hebaa@hu.edu.jo
Office Hours:	Sun, Tues. 9:30-10:30 Mon, Wed. 12:30-1:30

Name	**Dr. Rawan AbuDalu**
Academic Title:	**Assistant Professor**
Office Location:	School of Pharmaceutical Sciences- Third floor
Telephone Number:	+962(5)-399303333-3431
Email Address:	**Rawana@hu.edu.jo**
Office Hours:	Sun, Tues. 11:00-12:00 Mon, Wed. 10:30-11:30

REFERENCES AND LEARNING RESOURCES

Title: Basic & clinical pharmacology / Basic and clinical pharmacology,
Author: Katzung, Bertram G. Masters, Susan B. Trevor, Anthony J.
Edition: 14th edition, 2018
ISBN 978-1-259-64115-2
ISSN 0891-2033

Title: Pharmacology (Lippincott Illustrated Reviews Series)
Author: Richard A. Harvey, Michelle A Clark, Richard Finkel, Jose A. Rey, Karen Whalen
Edition: 7th edition, 2019

Course Objectives

After completion of this course the student will:

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

Intended Learning Outcomes

A. Knowledge and Understanding

A1-Identify the pathophysiology, etiology, and clinical features of diseases and medical conditions mentioned in the course.

A.2- Recognize the basic pharmacology of different classes of antimicrobials, anti-cancers as well as immunopharmacology, gastrointestinal pharmacology and dermatologic pharmacology.

A3- Recognize the prototype drugs that work on one or more of the human body's systems and understand the cellular mechanisms associated with drug action.

A.4- Identify the main sources that can be used to get information about pharmacology.

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

B.1- Relate between drug effect and binding to different types and subtypes of receptors and how knowing the receptor of a certain drug would help in designing it and predicting its effect.

B.2- Evaluate drug adverse effects, contraindication and drug interaction that may affect therapeutic decision.

B.3-Distinguish the pharmacokinetic proprieties between medications in the same group and how that is important in drug selection according to patient's condition.

C. Approach to Practice Pharmacy:

C.1- Apply learned information to optimize patient therapy based on patient condition.

C.2- Predict some of the expected side effects of antimicrobials, anticancer as well as immunosuppressants and drugs used for dermatologic conditions.

D. Personal and Professional Development:

D1- Create effective communication with patients and other health care providers about the effectiveness and safety of gastrointestinal medications, antimicrobials, anticancer as well as immunosuppressants and drugs used for dermatologic conditions.

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: +962-5390333-4209
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.

At the beginning of the lectures, students should be on time and don't leave before the end of the lecture without an accepted excuse. **If any one missed a class, it is his/her responsibility to find out about any announcements or assignments you have missed.**.

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.

Plagiarism

Plagiarism is considered a serious academic offence and can result in your work losing marks or being failed. HU expects its students to adopt and abide by the highest standards of conduct in their interaction with their professors, peers, and the wider University community. As such, a

student is expected not to engage in behaviours that compromise his/her own integrity as well as that of the Hashemite University.

Plagiarism includes the following examples and it applies to all student assignments or submitted work:

- **Use of the work, ideas, images or words of someone else without his/her permission or reference to them.**
- **Use of someone else's wording, name, phrase, sentence, paragraph or essay without using quotation marks.**
- **Misrepresentation of the sources that were used.**

The instructor has the right to fail the coursework or deduct marks where plagiarism is detected

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%	Week (5- 6)
Second Exam	30%	Week (10-11)
Final Exam	40%	Week (15-16)

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 multiple choice based on descriptive questions, explanation questions, and case-solving problem questions.

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.

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

For pharmacology 3 course, sections with 2 lecture periods per week. One lecture period covers 1 lecture hour (50 minutes). The course contents are described as main topic and detailed related subtopics. **All lectures are delivered by face-to-face learning.**

"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.

All lectures are delivered by face-to-face learning.

Course Content					
Week Number	**No. of Hours**	**CILOs**	**Subject**	**Delivery Methods**	**Assessment Methods**
1	3	A,B,C,D	**Antimicrobials** Introduction to antimicrobials	Power point presentation	First exam, Final exam
2+3	4	A,B,C,D	Beta-Lactam & Other Drugs Used in the Cell Wall- & Membrane Active Antibiotics	Power point presentation	First exam, Final exam

3	2	A,B,C,D	Protein synthesis inhibitors: Tetracyclines, Macrolides, Clindamycin, Chloramphenicol, Streptogramins.	Power point presentation	First exam, Final exam
4	3	A,B,C,D	Aminoglycosides & Oxazolidinones	Power point presentation	First exam, Final exam
5	3	A,B,C,D	DNA synthesis inhibitors: Sulfonamides, Trimethoprim, & Quinolones	Power point presentation	First exam, Final exam
6	3	A,B,C,D	Antimycobacterial Antifungals	Power point presentation	Second exam, Final exam
7	3	A,B,C,D	Antivirals Antiprotozoal agents	Power point presentation	Second exam, Final exam
8-10	9	A,B,C,D	**Cancer Chemotherapy**	Power point presentation	Second exam, Final exam
11	3	A,B,C,D	**Treatment of GI Diseases** Dugs used in acid -Peptic disease.	Power point presentation	Final exam
12	3	A,B,C,D	Drugs used to treat constipation Drugs used to treat diarrhea	Power point presentation	Final exam
13	1	A,B,C,D	Drugs Used to Control nausea and vomiting	Power point presentation	Final exam
13	2	A,B,C,D	**Immunopharmacology**	Power point presentation	Final exam
14	3	A,B,C,D	**Drugs used for dermatologic disorders**	Power point presentation	Final exam
15+ 16			**University Final Exams**		