



**Philadelphia University**  
**Faculty of Pharmacy**  
**Department of Clinical Sciences**  
**First Semester, 2017/2018**

<u>Course syllabus</u>	
Course code: 0510431	Course title: Pharmacology III
Course prerequisite(s) and/or corequisite (s): Pharmacology - II (0510335)	Course level: Fourth level
Credit hours:3 hours	Lecture time  Section 1: Su,Tu,Th (9: 10-10:00) Section 2: Su,Tu,Th (11: 10-12:00)  Section 3: M, W (8: 15-9:45)
Location:  Section 1: Room 6609 Section2: Room 5509 Section 3: Room 5509	

**Academic Staff Specifics**

Name	Rank	Office number and location	Office hours	E-mail address
Dr. Najlaa Saadi	Assistant Professor	Faculty of Nursing, room 213	M, W  11:15-13:15  Su,Tu,Th 8:00 -9:00  10:00 -11:00	<a href="mailto:nsaadi@philadelphia.edu.jo" style="color: blue; text-decoration: underline;">nsaadi@philadelphia.edu.jo</a>

### **Course module description:**

This Module is designed to provide the students with the unit processes taking in pharmacology. At this level, the student has been exposed to pharmacology (II) where different basic pharmacological topics will be illustrated in it regarding the mentioned drugs. This module deals with study of the mode of action ,adverse effects ,clinical application ,toxicity of drugs that acts on the cardiovascular diseases such as Angina pectoris, heart failure & cardiac arrhythmias as well as study of drugs with diuretic , anti-hyperlipidemic drugs, anticancer activities & non steroidal anti-inflammatory drugs are also investigated. The interaction of these drugs with each other or with others is also viewed.

### **Course objectives:**

Specific learning objectives will be provided for each individual lecture topic. However the general course goals are as follows:

1. The student should know the correct drug classification
2. Knowledge & identify the indication & clinical uses of the major class of clinically important drugs.
3. Understand the scientific principle of drug action and the various mechanisms by which drugs can mediate their pharmacological effect.
4. For each drug/drugs class the student should know the following: pharmacokinetics, adverse effects, contraindications and drug interactions
5. Application of this knowledge on clinical experience & research work.

### **Course / module components Text book**

Basic and Clinical pharmacology by Katzung BG, Masters SB, Trevor AJ (editors), McGraw Hill, New York,13<sup>th</sup> edition, 2015 ISBN 978-125-925290-6.

### **References**

1. Lippincotte, illustrated reviews: Pharmacology by Whalen K, Harvey RA (editors), Williams & Wilkins, 6<sup>th</sup> edition, 2015.
2. The pharmacological basis of therapeutics by brunton; laurence L. Lazo, Johns S. Parker, Keith L & Alfred Goodman Gillman 11<sup>th</sup> edition McGraw Hill. ISBN 0-07-142.

### **Teaching methods**

Classes will be held three hours weekly, the content of this course will be presented in a variety of different formats: Lectures, discussion groups, tutorials, problem solving, debates, etc.

### **Learning outcomes**

- **Knowledge and understanding**
  - A. Classify the Major groups of cardiovascular drugs, and identify the drugs which are used for angina pectoris , heart failure and cardiac arrhythmia
  - B. Anticancer agent, drugs used in gout and non steroidal anti-inflammatory drug .
  - C. Identify pharmacokinetic and pharmacodynamic of drugs, indication and, clinical uses, side effects and contraindication.

- D. Build knowledge on routes of drug administration, effects of drug on pregnant and lactating women.
  - E. Recognize the drug - drug interaction and drug - food interaction and prevent adverse drug reactions on the body.
- **Cognitive skills (thinking and analysis)**
    - A. Possess self-learning skills, problem solving & critical thinking abilities.
    - B. Prediction the clinical uses, side effects by knowing the pharmacokinetic & pharmacodynamics of drug.
    - C. Interpret, analyze & evaluate information in the literature.
  - **Communication skills (personal and academic).**
    - A. Write clear concise & organized communication. Give oral presentation to small & large groups, application of animation effect to the slides, addition pictures, and figures for delivery of information relating to the concepts of pharmacology.
    - B. Display some scientific videos to give the information by easiest and simplest way to the students.
    - C. Make students groups to solve problems.
    - D. Questions-feedback.
  - **Transferable Skills**

Students will apply most of the acquired knowledge from the theoretical lectures in the co-requisite practical laboratory. The theoretical information also allows them to be able to perform a research & experimental work.

**Assessment instruments**

- Short reports and/ or presentations, and/ or Short research projects.
- Homework assignments.
- Quizzes.
- Exams (First, Second and Final Exams).

<b>Allocation of Marks</b>	
<b>Assessment Instruments</b>	<b>Mark</b>
First examination	20
Second examination	20
Final examination:	40
Reports, research projects, quizzes, homework, Projects	20
<b>Total</b>	<b>100</b>

**Documentation and academic honesty**

- Documentation style (with illustrative examples).
- Protection by copyright.
- Avoiding plagiarism.

Course / academic calendar

Week	Basic and support material to be covered	Homework/reports and their due dates
(1)	Cardiovascular drugs; Vasodilators and the treatment of angina pectoris.	
(2)	Cardiac glycosides and other drugs used in congestive heart failure	
(3)	Agents used in cardiac arrhythmias.	
(4)	Diuretic agents.	
(5)	Agents used in Hyperlipidemia.	
(6)	Non steroidal anti-inflammatory Drugs	
First examination (7)	Nonopioid Analgesic	Therapeutic and toxic potential of over the counter agents.
(8)	Drug used in Gout	
(9)	Cancer chemotherapy; introduction, poly functional alkylating agents.	
(10)	Plant alkaloids and antibiotics.	
(11)	Anti metabolites.	
Second examination (12)	Hormonal agents and miscellaneous anticancer agents.	
(13)	Immunopharmacology, introduction and immunosuppressive agents.	Immunomodulating agents.
(14)	Cancer immunotherapy and gene therapy.	
(15)	Drugs used to treat diseases of blood, inflammation .	Agents used in anemia and drugs used in disorders of coagulation.
Specimen examination (Optional)		
(16)		
Final Examination		

**Expected workload:**

On average students need to spend 2 hours of study and preparation for each 50-minute lecture/tutorial.

**Attendance policy:**

Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.

**Other Education Resources • Books**

1. Clinical Pharmacology by Bennett PN, Brown MJ ,Sharma PJ, Elsevier, London ,11<sup>th</sup> edition, 2012.
2. British National Formulary (BNF) Royal Pharmaceutical Society. UK 58<sup>th</sup> edition, 2009.

**Electronic resources**

<http://www.philadelphia.edu.jo/pharmacy/resources.html>