



Philadelphia University  
Faculty of Pharmacy  
Department of Clinical Sciences  
Second semester, 2017/2018

**Course Syllabus**

<b>Course Title: Pharmacology I</b>	<b>Course code: 0511310</b>
<b>Course Level: Third year</b>	<b>Course prerequisite (s) and/or corequisite (s): Physiology2 (051220)</b>
<b>Lecture Time:</b>	<b>Credit hours: 3</b>

**Academic Staff**  
**Specifics**

<b>Name</b>	<b>Rank</b>	<b>Office Number and Location</b>	<b>Office Hours</b>	<b>E-mail Address</b>
<b>Dr. Mansour Haddad</b>	<b>Assistant Professor</b>	<b>Faculty of Nursing</b>	<b>Sun, Tues, Thurse 11-12, 8-9, Mon, Wed 1-2, 9-10 And any time</b>	<b><a href="mailto:Dr.man.haddad@gmail.com">Dr.man.haddad@gmail.com</a></b>

**Course module description:**

This course is an essential topic for pharmacy, which provide students with the basic principles of the science of pharmacology and familiarizes them with the necessary terminology. This module has a reflective, interactive and analytical contextual focus. However, it deals with concept of drug receptor interaction, the mode o action of drugs, the modifying responses and adverse effects, the dose-response relationship, drug toxicity, drug absorption, distribution, protein binding, metabolism, and excretion.

It also includes detailed information about drugs acting on the autonomic nervous system and drugs acting on CNS as well as the histaminergic and serotonergic drugs. The module also covers drug abuse.

### **Course module objectives:**

At the end of this module, students will be able to:

1. Get knowledge of the terms and application of the basic principles of pharmacology.
2. Get knowledge of the general pharmacokinetics and pharmacodynamics of drugs with special attention on drugs studies.
3. Understand the mechanisms of action of drugs which act through and /or mimic the autonomic nervous system.
4. Understand the other topics such as drugs which act on the CNS (Psycho and neuro-pharmacology).

### **Course/ module components:**

- Books (title , author (s), publisher, year of publication)

#### **Basic and Clinical Pharmacology**

**by Bertram G. Katzung,( Author) MacGraw Hill,( Publisher) 13th Edition  
2012-ISBN: 978-1-259-00932-7**

### **Teaching methods:**

Classes will be held around 3 hours a week. 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
  1. Identifying the fundamental principles of pharmacokinetics and pharmacodynamics.
  2. Applying the pharmacodynamic and pharmacokinetic principles that describe drug actions in humans.
  3. Comparing and contrasting the specific pharmacology of the major classes of drugs, important distinctions among members of each class, the risks and benefits, in relation to the organ systems they affect, and the diseases for which they are used therapeutically.

4. Identifying the role of molecular genetics and genomic principles in pharmacotherapeutics and drug development.

- Cognitive skills (thinking and analysis).

**Possess self learning skills, problem solving & critical thinking abilities.  
Interpret, analyze & evaluate information in the literature**

- Communication skills (personal and academic).

**Write clear concise & organized communication-animations, vedios, questions-feedback.... Make students groups to solve problems.... Give oral presentation to small & large groups.**

- Practical and subject specific skills (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
  - Quizzes.
  - Home works
  - Final examination: 40 marks
- During the course we will give 3 Exams. The individual exams will cover all the material covered during the specified section. Emphasis will be place on: a) pharmacological targets and concepts b) therapeutic effect c) potentially serious adverse/side effects and d) contraindications, drug/gene interactions.
  - Missing an exam without an accepted excuse will result in a grade of zero for that exam.

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

### **Documentation and academic honesty**

- Documentation style (with illustrative examples)

- Protection by copyright
- Avoiding plagiarism.

### Course/module academic calendar

<b>Week</b>	<b>Basic and support material to be covered</b>
(1)	<b>General principles of pharmacology, terminology and general introduction</b>
(2)	<b>Receptors and Drug Targets</b>
(3)	<b>Pharmacokinetics, pharmacodynamics and ADME</b>
(4)	<b>Pharmacogenetics, drug development and clinical trials</b>
(5)	<b>Drugs affecting the autonomic nervous system. General aspects of neuropharmacology.</b>
(6) <b>First examination</b>	<b>Cholinergic ( parasympathomimetics ) drugs. Cholinergic ( muscarinic) blocking agents. Ganglionic blocking agents.</b>
(7)	<b>Neuromuscular blocking agents and Muscle relaxants. Adrenergic ( Sympathomimetic ) drugs. Adrenergic blocking agents.</b>
(8)	<b>Drugs acting on the adrenergic neuron. Antihypertensive agents</b>
(9)	<b>Histamine and Antihistamines. Prostaglandine.</b>
(10)	<b>Serotonin and Serotonin antagonist. Kinins and other peptides.</b>
(11) <b>Second examination</b>	<b>Drug acting on the CNS (Psychopharmacology). General concept of psychopharmacology. Antipsychotic drugs.</b>
(12)	<b>Anti-depressant drugs.</b>
(13)	<b>Anti-parkinsonian drugs</b>
(14)	<b>Antiepileptic.</b>
(15) <b>Specimen examination (Optional)</b>	<b>Narcotic analgesics and antagonists and drug abuse and dependence.</b>
(16) <b>Final Examination</b>	

### 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.

**Module references/Books**

1. Pharmacology Recall, Second Edition, Print and Audio Package, Author(s): Anand Ramachandran MD , Lorne H Blackbourne MD, FACS,Publication Date: Nov 29, 2007, ISBN/ISSN: 9780781787307

2. Pharmacology for Health Professionals, Author(s): W. Renee Acosta RPh, MS  
Publication Date: Apr 30, 2012, Edition: Second, ISBN/ISSN: 9781608315758

3- Medical pharmacology, Udaykumar,Padmaja (Author), New Delhi: CBS Publishers & Distributors Pvt Ltd., 2011, 3d edition, ISBN: 978-81-239-1966-9.

4- How drugs work: basic pharmacology for healthcare professionals, McGavock ,Hugh (Author), Oxford: Radcliffe Publishing, 2011, 3d edition, ISBN: 978-1-84619-478-8.

5. Lippincott's Illustrated Reviews: Pharmacology, Fifth Edition  
Richard A. Harvey; Michelle A. Clark; Richard Finkel; Jose A. Rey; Karen Whalen  
ISBN: 978-1-4511-1314-3

6. Principles of Pharmacology: The Pathophysiologic Basis of Drug Therapy, Third Edition  
David E. Golan; Armen H. Tashjian, Jr.; Ehrin J. Armstrong; April W. Armstrong  
ISBN: 978-1-60831-270-2

7- The pharmacological basis of therapeutics, Brunton;Laurence L.Lazo,Johns S.Parker,Keith L & and Alfred Goodman Gillman. (Editors) 11 edition .McGraw-Hill (Publisher), ISBN 0-07-142280-3

**Journals**

Any pharmaceutical or medical Journal or related

**Websites**

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

