



**Philadelphia
University**

Faculty of Pharmacy
Department of Clinical Sciences
2nd semester – 2019/2020

Course Syllabus

Course title: Toxicology	Course code: 0510534
Course level: 5th year	Course prerequisite (s) and/or corequisite (s): Pharmacology 2 (0520400)
Lecture times: <ul style="list-style-type: none"> • Sun/Tue/Thur: 11.10-12.00 • Mon/Wed: 11.15 – 12.45 	Credit hours: 3 hours
	Office hours: <ul style="list-style-type: none"> • <u>SUN, TUS, THU:</u> 10.00 -11.00 12.00 – 13.00 • <u>MON, WED:</u> 9.00 – 11.00
Office location: Faculty of Nursing, room number 408	

**Academic Staff
Specifics**

Name	Rank	Office Number and Location	Office Hours	E-mail Address
Dr. Yousef Abusamra, PhD	Assistant professor	Faculty of Nursing- Room number <u>408</u>	<u>S.T.S:</u> 10-11 12-13 <u>M.W:</u> 9-11	yabusamra@philadelphia.edu.jo

Course module description:

This course focuses on aspects of toxicology. Students will receive basic background information about important areas in toxicology, which includes the principles of toxicology, Dose- response relationships and mechanisms of toxic action.

Discuss the appropriate detoxification methods for general toxicology, the toxicological effect of heavy metals, products like pesticides and household and different groups of medications and compounds on human health, and commonly types of antidotes and their mechanism of action.

Course module objectives:

At the end of this course, the student will:

1. Have basic, full knowledge about human health toxicology
2. Understand the pharmacokinetics of toxins
3. Know the appropriate general detoxification method for certain group of chemical agents
4. Know different sources of toxicants and their mechanism of toxicity
5. Be familiar with clinical presentations and the differential lab and physical examinations of different toxicants

Course/ module components

Text book:

- 1 Toxicology: the basic science of poisons, casarett and doulls, 8^{ed}, 2013, ISBN: 978-0071769235
Clinical toxicology, principles and mechanisms, 2 ed , Frank A. Barile,2010, ISBN: 978-1420092257
- 2

Teaching methods:

Classes will be held three times a week. The content of this course will be presented in a variety of different formats:

- Lectures three times a week;

- Applied case studies and discussion in class.

Learning outcomes:

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

- 1 Understand the basic principles of toxicokinetics and toxicodynamics
- 2 Provide knowledge of the commonly encountered toxicants
- 3 Have knowledge of different types of toxicants (household/industrial, medical, and drugs of abuse) and their mechanism of toxicity
- 4 Provide knowledge of the most commonly encountered antidotes, their mechanisms of actions, routes of administration
- 5 Apply the knowledge obtained from this course to evaluating exposure and solving problems associated with toxicants.

Assessment instruments

- Quizzes.
- Home works
- Final examination: 40marks

<u>Allocation of Marks</u>	
Assessment Instruments	Mark
First examination	20 marks
Second examination	20 marks
Final examination: 50 marks	40 marks
Research projects, Quizzes, Home works	20
Total	100 marks

Documentation and academic honesty

It is expected that all students help to maintain an environment of academic honesty. The following behaviors are strictly forbidden during the administration of the exam: talking, wearing of hats with bills, checking, sending, and answering of cell phone message including text messages and passing of papers or notes. Students must keep their eyes on their own paper. All students are required to hand-in the packet of test questions with their name and 6-digit student ID number clearly indicated on each page of the exam.

Course/module academic calendar

week	Basic and support material to be covered	Homework/ Quizzes dates
(1)	Principles of Toxicology	
(2)	Pharmacokinetics and pharmacodynamics of toxicants	
(3)	Pharmacokinetics and pharmacodynamics of toxicants	
(4)	General approaches to the management poisoned patients	Quiz 1
(5) First exam	General approaches to the management poisoned patients	
(6)	Heavy metals toxicology (lead, mercury, cyanide, iron, cadmium, arsenic, and copper)	Quiz2
(7)	Heavy metals toxicology....	
(8)	Heavy metal toxicology	
(9)	Pesticide toxicology	Quiz 3

(10) Second exam	Pesticides toxicology	Home work deadline
(11)	Pesticide toxicology	
(12)	Animal toxicology	Quiz 4
(13)	Animal toxicology	
(14)	Plant toxicology	
(15)	Final examination	

Expected workload:

On average students need to spend 3 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

Students will be expected to give the same attention to these references as given to the Module textbook.

1. Casarett & Doull's: Essentials of Toxicology, 2nd Ed. 2010 by Curtis Klaassen and John Watkins III (ISBN: 978-0071622400)

Journals and Websites

1. American College of Toxicology, www.actox.org/
2. International journal of toxicology, ijt.sagepub.com/