

Course Syllabus

1	Course title	Toxicology
2	Course number	1203562
3	Credit hours	2 (theory)
	Contact hours (theory, practical)	2 (theory)
4	Prerequisites/corequisites	Pharmacology I &II
5	Program title	BSc in Pharmacy and PharmD
6	Program code	
7	Awarding institution	The University of Jordan
8	School	Pharmacy
9	Department	Clinical pharmacy and Biopharmaceutics
10	Course level	Undergraduate
11	Year of study and semester (s)	First semester 2023/2024
12	Other department (s) involved in teaching the course	N/A
13	Main teaching language	English
14	Delivery method	Blended (Synchronous & Asynchronous lecturing)



15	Online platforms(s)	☒ Moodle x Microsoft Teams ☐ Skype ☐ Zoom ☐ Others.....
16	Issuing/Revision Date	08/10/2023

17 Course Coordinator:

Name: Khawla Abu Hammour	Contact hours:
Office number:	Phone number:
Email: k.hammour@ju.edu.jo	

18 Other instructors:



19 Course Description:

This 2-credit hours course covers many aspects of toxicology. Learners receive basic background information on important traditional areas in toxicology, as well as in areas that are currently developing. This background information will include principles, definitions, and basic information, and is designed to bring participants up to current levels of understanding of toxicology as it applies to both the human health and environmental areas.

20 Course aims and outcomes:

A- Aims:

- 1- To expand his knowledge in a critical medical setting
- 2- To be familiar with the treatment algorithm (toxicants-specific)
- 3- To provide knowledge of the commonly encountered intoxications
- 4- To have knowledge of clinical presentations and the differential lab physical examinations
- 5- To detect, analyze, and prioritize the medical problems
- 6- To evolve common medical problems related to clinical toxicology
- 7- To evaluate risks in clinical toxicology management practice

B- Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

Disriptors	CLO No.	SLOs of the program (PLOs)	Learner	Problem-Solver	Manufacturer	Professional
		SLOs of the course (CLOs)				
Knowledge	K1	Understand the basic principles of toxicokinetics and toxicodynamics				

		Provide students with general principles for the management of poisoned patients and be familiar with the treatment algorithm (general and toxicants-specific)				
	K2	Provide students with general principles for the management of poisoned patients & provide knowledge of the commonly encountered toxidromes				
	K3	Have knowledge of different types of toxicants (environmental, household/industrial, medical, and drugs of abuse) and their mechanism of toxicity & have knowledge of clinical presentations and the differential lab physical examinations				
Skills	S1	Identify toxin-related problems and recommend the appropriate pharmacological and non-pharmacological treatment methods				
	S2	Have a critical understanding of the principles underpinning the various classes and individualizing tests performed by the laboratory, for each type of physical evidence.				
	S3	Apply key scientific principles underpinning the toxicological sciences & make appropriate therapeutic decisions for individual poisoned patients				
Competencies	C1	Show responsibility, accountability and commitment by complying with tutor's instructions and relevant university regulations				

21. Topic Outline and Schedule:

Week	Lecture	Topic	Student Learning Outcome (CLOs)	Learning Methods (Face to Face/Blended / Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1-3		Introduction & Definition and terminology	K1	Blended			Exam	Textbook, handouts
		Review of relevant toxicokinetic principles	K1	Blended			Exam	Textbook, handouts
1-3		Review of relevant toxicodynamic principles	K1	Blended			Exam	Textbook, handouts
		Factors that influence toxicity	K1	Blended			Exam	Textbook, handouts
4-6		Evaluation of the patient	K1	Blended			Exam	Textbook, handouts
			K1	Blended			Exam/Quiz	Textbook, handouts
7		Toxicokinetics	K1	Blended			Exam/Quiz	Textbook, handouts
		Lead	K& S	Blended			Exam/Quiz	Textbook, handouts

Week	Lecture	Topic	Student Learning Outcome (CLOs)	Learning Methods (Face to Face/Blended / Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
8		Iron	K& S	Blended			Exam	Textbook, handouts
		Nitrate	K& S	Blended			Exam	Textbook, handouts
9+10		CO	K& S	Blended			Exam	Textbook, handouts
		Pesticides	K& S	Blended			Exam	Textbook, handouts
9+10			K& S	Blended			Exam	Textbook, handouts
		Cyanide	K& S	Blended			Exam	Textbook, handouts
11+12		NSAIDs	K& S	Blended			Exam	Textbook, handouts
		Aspirin	K& S	Blended			Exam	Textbook, handouts
11+12		Acetaminophen	K& S	Blended			Exam	Textbook, handouts

Week	Lecture	Topic	Student Learning Outcome (CLOs)	Learning Methods (Face to Face/Blended / Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
		Nicotine	K& S	Blended			Exam	Textbook, handouts
13+14		Alcohol	K& S	Blended			Exam	Textbook, handouts
			K& S	Blended			Exam	Textbook, handouts
13+14		Opioid	K& S	Blended			Exam/ assignment	Textbook, handouts
		CNS stimulants	K& S	Blended			Exam/ assignment	Textbook, handouts
		All	S1, S2 and C1	Blended			Exam/ assignment	Textbook, handouts

22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	CLOs	Period (Week)	Platform
Midterm Exam	30	Topics 1-5	K1 & K2 & K3	8 th week	On campus
Quiz	10	Self Study material CNS-stimulant	K & S	5 th week	On line
Assignment	20	Pharmacovigilance AMR	K, S1, S2 & C1	12 th week	On campus
Final Exam	40	All Topics	K1, K2, K3, S1 & S2	15 th week	On campus

23 Course Requirements

Students should have:

- Computer
- Internet connection
- Active university account on Moodle (e-learning) website
- Active university account on Microsoft Teams

A Course Policies:

A- Attendance policies: As per the applicable university regulations

B- Absences from exams and handing in assignments on time: As per the applicable university regulations

C- Health and safety procedures: N/A

D- Honesty policy regarding cheating, plagiarism, misbehavior: As per the applicable university regulations

E- Grading policy:

- Midterm exam (30%)
- Course work (30%)
- Final exam (40%)



F- Available university services that support achievement in the course:

- Moodle (e-learning) website
- Microsoft Teams institutional subscription

25 References:

A- Required book(s), assigned reading and audio-visuals:

1. Casarett & Doull's: Essentials of Toxicology, 3rd Ed. 2015 by Curtis Klaassen and John Watkins III (ISBN: 978-0071622400)
2. Casarett & Doull's: Essentials of Toxicology, 2nd Ed. 2010 by Curtis Klaassen and John Watkins III (ISBN: 978-0071622400)
3. Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed. 2013 by Curtis D. Klaassen (ISBN: 978-0071769235)
4. Poisoning and Drug Overdose, 6th Ed. 2012 by Kent R. Olson (ISBN: 978-0071668330)
5. Goldfrank's Toxicologic Emergencies, 10th Ed. 2014 by Robert S. Hoffman, Mary Ann Howland, Neal A. Lewin, Lewis S. Nelson, and Lewis R. Goldfrank (ISBN: 978-0-07-180184-3)
6. Clinical toxicology : principles and mechanisms, 2nd Ed. 2010 by Barile, Frank A. (ISBN: 978-1420092257)

26 Additional information:



Name of Course Coordinator: -----Signature: ----- Date: -----
Head of Curriculum Committee/Department: ----- Signature: -----
Head of Department: ----- Signature: -----
Head of Curriculum Committee/Faculty: ----- Signature: -----
Dean: ----- Signature: -----