



Course Detailed Description – Procedures of the Course Plan Committee /Faculty of Pharmacy

QF02/0408–1.0

Department	Pharmacy
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Course Name	Toxicology	Course No.	201434
Prerequisite	(201431) Pharmacology-2-	Credit Hours	2
Number & date of course plan approval		Brief Description	See form QF02/0409

Intended Learning Outcomes	At the end of this course the student will get knowledge about: 1.characteristics of exposure to toxic substances (drugs and non-drugs) 2. mechanisms of toxicity 3.management of the human poisoning case		
Course Topics	1.Basic principles in toxicology 2.Clinical strategy for treatment of the poisoned Patient 3.Toxicity of gases 4.Toxicity of pesticides 5. Toxicity of metals 7. Toxicity of solvents 8. Drug overdose		
Text Books	1.Casarett and Doull's Toxicology the basic science of poisons Seventh Edition, 2008, Curtis D. Klaassen 2. Casarett and Doull's essentials of Toxicology, 2009, Curtis D. Klaassen		
References	1. Goldfranks Toxicologic Emergencies. 8 th edition, 2006 2. LU'S Basic Toxicology, 5 th edition, 2006 3. Poisoning & Drug Overdose, 4 th edition, 2006		
Grade Determination	1 st Exam = 25% 2 nd Exam = 25% Final Exam = 50%	Practical Course Grade Determination	Course Work = 50% (Reports, Term Papers, Quizes) Final Exam = 50%



Course Outline				
Week	Hours	Subjects	Chapters in Textbook	Notes
1	1	- Introduction & definitions: Toxicology, Poison, Toxic effects, Therapeutic dose, toxic dose, TLV.	2	
	1	-Fields of Toxicology, Characteristics of exposure.		
2	1	-Classification of toxic agents, mechanism of toxic action.	2	
	1	-Types of toxic effects, Interaction of chemicals, Selective toxicity.		
3	1	-Clinical strategy for treatment of the poisoned Patient: Stabilization of the patient, Clinical evaluation (history, physical, laboratory, radiology)	32	
	1	-Prevention of further toxin absorption		
4	1	-Enhancement of toxin elimination	32	
	1	-Administration of antidote, Supportive care and clinical follow-up		
5	1	-Toxicity of Cyanide: sources and mechanism of toxic action	11	
	1	- Toxicity of Cyanide: symptoms and treatment		
6	1	-Toxicity of Carbon Monoxide	11	
	1	-Toxic Methemoglobinemia		
7	1	-Toxicity of Organophosphates insecticides, Mechanism of toxic action	22	
	1	-symptoms of toxicity and treatment		
8	1	-Toxicity of Organochlorine insecticides	22	
	1	- Toxicity of herbicides		
9	1	- Toxicity of rodenticides	22	
	1	-Toxicity of fungicides		
10	1	-Toxicity of metals: Principles of metal chelation, chelating agents clinically used	23	
	1	-Toxicity of Iron		
11	1	-Toxicity of Lead	23	
	1	-Toxicity of Mercury		
12	1	-Toxicity of Solvents: Ethanol, Methanol	24	
	1	- Toxicity of Solvents: Isopropanol, Ethylene Glycol		
13	1	-Toxicity of Solvents: Carbon Tetrachloride, Chloroform,	24	
	1	- Toxicity of Solvents: Trichloroethylene Tetrachloroethylene, Methylene Chloride		



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14	1	-Salicylate toxicity: sources, mechanism of toxic action	32	
	1	-Salicylate toxicity: symptoms, treatment		
15	1	-Acetaminophen toxicity: sources, mechanism of toxic action	32	
	1	-Acetaminophen toxicity: symptoms, treatment		
16	1	-Opioid overdose, Isoniazid overdose	32	
	1	-Penicillin overdose, Chloramphenicol overdose, Rifampin overdose		

Approved by Dept. Chair		Date of Approval	
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Extra Information: (Updated every semester and filled by course instructor)

Course Instructor	Dr. Suhair Hikmat
Office No.	
Extension	
Email	
Office hours	