



**Jordan University of Science and Technology**  
**Faculty of Science & Arts**  
**Chemistry Department**

CHEM431 Chemistry Of Toxicology

Second Semester 2023-2024

**Course Catalog**

2 Credit Hours. This course is designed to build up the knowledge and scientific skills regarding the types and sources of chemical toxins, pathophysiology of intoxication and manifestation, their principal investigation, precaution and management. It also involves the understanding of preventing illegal or antisocial use of chemicals.

**Teaching Method:** On Campus

**Text Book**

<b>Title</b>	Casarett & Doull's Toxicology: The Basic Science of Poisons
<b>Author(s)</b>	Curtis Klaassen
<b>Edition</b>	9th Edition
<b>Short Name</b>	Basic of poison
<b>Other Information</b>	

**Instructor**

<b>Name</b>	<b>Dr. Ayat Bani Rashaid</b>
<b>Office Location</b>	-
<b>Office Hours</b>	
<b>Email</b>	ahbanirashaid@just.edu.jo

**Class Schedule & Room**

Section 1:  
Lecture Time: Mon, Wed : 10:00 - 11:00  
Room: ندوات قسم الكيمياء

Prerequisites		
Line Number	Course Name	Prerequisite Type
913362	CHEM336 Principles Of Chemical Instrumentation	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Weeks 1, 2	Introduction to Toxicology	
Weeks 3, 4, 5	General Principles of Toxicology	
Weeks 6, 7	Mechanisms of Toxicity	
Week 8	Disposition of Toxicants	
Weeks 9, 10	Biotransformation of Xenobiotics	
Weeks 11, 12	Toxic Effects of Insecticides	
Weeks 13, 14	Toxic Effects of Metals	
Weeks 15, 16	Toxic Effect of Gases	

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Have an understanding of general principles of toxicology. [1a, 1d, 1e]	20%	
Have an understanding of analytical toxicology. [1a, 1c, 1d, 1f, 1g]	20%	
Have an understanding of biotransformation of poisons [1e, 1f, 1g, 1k]	20%	
Have an understanding of toxic effects of chemicals [1a, 1i, 1j]	30%	
Work in groups and teams. [1d, 1f]	10%	

Relationship to Program Student Outcomes (Out of 100%)										
a	b	c	d	e	f	g	h	i	j	k
20.67		4	15.67	11.67	14	9		10	10	5

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