



جامعة المجمعة
Majmaah University

وكالة الجامعة للشؤون التعليمية
إدارة البرامج الدراسية والتطوير

نموذج (5)

مختصر توصيف المقرر

(Course Syllabus)

معلومات المقرر * (Course Information):

اسم المقرر:	السموم الكيميائية
رقم المقرر:	
اسم ورقم المتطلب السابق:	كيمياء حيوية 2 CHM 362
اسم ورقم المتطلب المرافق:	لا يوجد
مستوى المقرر:	
الساعات المعتمدة:	3
Module Title:	Chemical toxicology
Module ID:	
Prerequisite (Co-requisite) :	Biochemistry 2 CHM 362
Co-requisite :	None
Course Level:	
Credit Hours:	3 hours

Module Description

وصف المقرر :

This course provides an introduction of Chemical toxicology. The course includes an overview of the general principles of chemical toxicology, toxicokinetics, and mechanisms of toxicity . The course also includes discussion of selected toxic agent

Course in chemical toxicology dealing with both chemical hazards and exposure. Overview Chemicals as Major Types of Toxicity, Types of Toxicants ,study of poisonous chemicals, drugs and other compounds, Case Studies of alcohol and lead, Isothiocyanates, Mustard gas, Sarin gas and other Specific examples

This course demonstrates the basic ideas of General toxicological principles and overview of toxic substances: basic description how substances are absorbed , distributed and eliminated from the body. awareness about toxicokinetic models and the processes of biotransformation.

This course discus the Toxicology in the society: Environmental toxicology, food toxicology, Toxic Effects of Pesticides, risk assessment.

Module Aims

أهداف المقرر :

1	Provide an introductory overview of the field of toxicology covering the basic principles, target organ toxicity, the toxicity of a limited group of compounds	1
2	Develop an understanding of how the body's biochemical and physiological mechanisms operate to manage the exposure to toxins, poisons and drugs	2
3	Understand the chemical basis of toxicity, and that toxicity is influenced by the chemical structure of the toxicant	3
4	Access and understand the range of toxicology studies utilized to assess potential human health hazards	4

Learning Outcomes:

مخرجات التعليم:

Upon successful completion of this course, the student will be able to :		
1	Understand the chemical basis of toxicity, and that toxicity is influenced by the chemical structure of the toxicant.	1
2	Recognize that toxic outcomes result from interaction between the toxic substance and the metabolic reactions of the organism.	
3	Characterize the mechanisms by which chemicals cause toxicity and other adverse effects in organisms in the environment.	2
3	Understand the properties of chemicals that affect environmental fates.	3
4	Characterize environmental fate of chemicals in the context of estimating exposures to organisms in the environment	4
5	Understand the range of toxicology studies utilized to assess potential human health hazards.	5
6	Understand the basic principles of and have current, cutting-edge knowledge in environmental and human health chemical toxicology.	6

Contents:

محتوى المقرر: Course

ساعات التدريس (Hours)	عدد الأسابيع (Weeks)	قائمة الموضوعات (Subjects)
3	1	Brief review of fundamental principles of chemical toxicology
3	1	Chemical safety and risk assessment
12	4	Chemicals as Major Types of Toxicity, Types of Toxicants ,study of poisonous chemicals, drugs and other compounds, Case Studies of



		alcohol and lead, Isothiocyanates, Mustard gas, Sarin gas and other Specific examples.
6	2	principles of chemical toxicology and mechanisms of toxic action
3	1	Classification of Toxic Agents, Classification of toxicological effects,
3	1	Principles of toxicological hazard and risk assessment, The human health risk assessment paradigm
6	2	General toxicological principles and overview of toxic substances: basic description how substances are absorbed , distributed and eliminated from the body. awareness about toxicokinetic models and the processes of biotransformation.
3	1	Treatment of acute poisoning: Five rule Elementary aid , Decontamination, Antidote therapy , Transport, Securing of evidence
6	2	Toxicology in the society: Environmental toxicology, food toxicology, Toxic Effects of Pesticides, risk assessment
45	15	Total

Textbook and References:

الكتاب المقرر والمراجع المساندة:

ISBN	سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم الكتاب المقرر Textbook title
ISBN 9781466553163	2013	CRC Press	Stanley E. Manahan	Fundamentals of Environmental and Toxicological Chemistry: Sustainable Science, Fourth Edition
ISBN 9781466503427	2015	CRC Press	Karen E. Stine, Thomas M. Brown	Principles of Toxicology 3rd Edition
	سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم المرجع Reference

* يتم تعبئة معلومات المقرر فقط باللغتين العربية والانجليزية وباقي المعلومات بلغة التدريس المعتمدة ويكرر لكل مقرر في الخطة الدراسية

* Course Information should be filled in Arabic and English. Other information should be filled using the approved teaching language at the college.

