University of Petra		جامعة البترا - عشرون عاما Petra University Anniversary
Faculty of Arts and Sciences	جامعة البترا	كلية الآداب والعلوم
Department of Chemistry		قسم الكيمياء

Course Syllabus

Year: 2019/2020 **Semester: Second semester**

Course No.	Course Title	Prerequisite	Co-requisite	Credit Hours Lectures / ECTS
101245	Chemical Toxicology and Safety	101102	-	3/6 ECTS: European Credit Transfer System

Instructor Name	e-mail	Office No.	Office ext.	Office Hours
Dr. Nuha Sweidan	nswweidan@uop.edu.jo	7205	7205	

Coordinator's Name: (if applicable)	Dr. Nuha Sweidan

Short Course Description	This course aids chemists, toxicologists and industrial hygienists to investigate workplace health problems by providing a concise, yet comprehensive, reference on all aspects of industrial exposures and toxicants. It updates and expands coverage of regulatory toxicology, toxicity testing, physical hazards and high production volume (HPV) chemicals. It also Includes information on occupational and environmental sources of exposure, toxicology, industrial hygiene, medical management and ecotoxicology. It also illustrates rules and programs required for laboratory safety.

Course Objectives

- To Provide a concise, yet comprehensive, reference on all aspects of industrial exposures and toxicants
- To Ensure that all students are made aware of all hazards known or reasonably foreseeable
- To Ensure that all students have the appropriate documented orientation and training for the specific hazardous material being handled and/or processes being performed
- To Ensure that safety policies are put into effect.

Course Intended Learning Outcomes (ILOs) and their Alignment with Program ILOs, Teaching and Learning Methods, and Assessment Methods:

Upon successful completion of this course, students are expected to achieve the following learning outcomes:

Course ILOs	Program ILOs	Teaching and Learning Method	Assessment Method
Knowledge (K)			
Demonstrate knowledge and understanding of Chemical Toxicants**,** Biological Toxins**,** Physical Toxicants**,** and Radiation	**K1**	**Lecture notes** & **PowerPoint slides**	**Exams & Quiz**
Label a chemical as "toxic" or "non-toxic" depending on the route of exposure and the dose. including species, age, and gender	**K2**	**Lecture notes** & **power point slides**	**Exams &Quiz**
Intellectual Skills (I)			
Define any toxic chemical as any substance which may be harmful to the environment or hazardous to your health if inhaled, ingested or absorbed through the skin and establish efforts for safety and secure use of them.	**I1**	**Lecture notes** & **PowerPoint slides**	**Exams &Quiz**
Practical skills (P)			
The course is a theoretical course			
Transferable Skills (T)			
Develop, implement and comply with sound regulations so chemicals are safe for intended use. Enhance scientific understanding of chemical safety. Produce publicly accessible safety information.	**T2**	**Lecture notes**, **power point slides& Home works**	**Exams &Quiz**

Course Schedule:

Week	Topic Details	Course ILO number	Reference
1, 2	**Introduction, Lab Safety Rules and Guidelines**	K1,K2,I1	Chapter 1
3	**Toxicity of metals and metalloids**	K1,K2,I1	Chapter 2
4	**Toxicity of chemical compounds**	K1,K2,I1	Chapter 3
5-6	**Toxicity of organic compounds**	K1,K2,I1	Chapter 4
7	**Toxicity of polymers, monomers and polymer additives**	K1,K2,I1	Chapter 5
8	**Toxicity of pesticides**	K1,K2,I1	Chapter 6
9	**Dust and fibers**	K1,K2,I1	Chapter 7
10	**Physical agents**	K1,K2,I1	Chapter 8
11	**Chemical safety: general information**	K1,K2,I1	Chapter 9

12-13	**Chemical acquisition, inventory, storage, transport and disposal**	K1,K2,I1	Chapter 10

Assessment Methods and Grading System:

Assessment method	Grade	
First Exam	25	
Second Exam	25	
Project or seminar	10	
Final Exam	40	Set by Registrar
Total	100	

Learning References:

1- Textbook (s): 1- Textbook (s): Hamilton and Hardy's industrial toxicology, Raymond Harbison, Marie Bourgeois and Giffe Johnson. 6th edition. 2015.
2- References: Any Chemical toxicology Book.
3- Other Resources: Other Resources: Power point slides supplied by the instructor, lecture notes, videos

Course Policies[i]

- Attendance Policy: University regulations apply to attendance.

- Academic Honesty: Academic dishonesty is an unacceptable mode of conduct, and will not be tolerated in any form at University of Petra. All persons involved in academic dishonesty and plagiarism in any form will be disciplined in accordance with University rules and regulations.

Approved by	Name	Date	Signature
Head of Department	Dr. Abdelmnim Altwaiq	24.02.2020	
Faculty Dean	Prof. Rami Abdel-Rahem	24.02.2020	

[i] Additional information may be added in this section according to the nature of the course.