



Shatt Al-Arab University

College of Science

Pathological analysis science Dept.

MODULE DESCRIPTION

Occupational laboratory safety

1- Educational Institution	Shatt al-arab university
2- Academic Dept.	Pathological analysis science Dept.
3- course name/Code	Path-114
4- Available forms Attendance	In-person
5- Semester/year	Semester
6- Number of class hours (total)	75
7- date this description was prepared	1/6/2024
8-Module Aim: 1. Provide the trainee with laboratory safety and security skills 2. Provide the trainee with the mechanisms for using personal protective equipment 3. Explain the concepts of hazards and risks 4. Identify the types of biological safety cabinets 5. Provide the trainee with the mechanisms for handling germs 6. Provide the trainee with how to manage chemical hazards	

9- Module Learning Outcomes

A- Cognitive Objectives

1. The learner will possess laboratory safety and security skills.
2. The learner will have extensive knowledge of the use of personal protective equipment.
3. The learner will be able to differentiate between the concepts of hazard and risk.
4. The learner will be able to handle germs.
5. The learner will be able to handle chemicals.
6. The learner will be able to manage risks, whether biological or chemical.

B- Teaching and Learning Methods

- 1- Active learning by encouraging students to actively participate in the educational process.
- 2- Encouraging students to acquire knowledge.
- 3- Encouraging students to work in groups in the laboratory.
- 4- Using modern visual aids in lectures.
- 5- Enhancing interaction between professors and students to enhance understanding and learning.

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	2,6,9	LO #1, 2, 4, 5, 7,8 and 9
	Assignments	2	10% (10)	1,11	LO # 3,6 and 10
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	5% (5)	14	LO # 11,12,13,14 and 15
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

C- - Affective and Value-Based Goals

- 1- Developing positive emotions such as respect
- 2- Enhancing students' self-awareness
- 3- Developing the ability to think
- 4- Developing social, cultural, and personal values

D- General and transferable skills (other skills related to employability and personal development).

- 1- Gain experience in identifying chemical, biological, and electrical hazards for personal safety.
- 2- Learn about personal protective equipment.
- 3- Identify and distinguish between hazardous and safe laboratory materials.

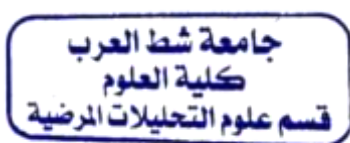
10. بنية المقرر

Weeks	Hours	Outcome learning required	Name unit	Learing method	
Introduction - Definition of the concept of safety and security and its principles	2 practical	Required skill in learning and diagnostic	Occupational laboratory safety	In-person	
International agreements					

The concept of risk and danger					
Chemicals and their classifications					
Chemical risk management					
Chemical spill management					
Exam mid.					
Laboratory waste management					
Germs and their classification					
Biological protection methods					
types of biosafety capitate					
Biological risk management					
Global systems in biological risk management					
Create problems inside the laboratory and the mechanism to solve them					
15-Final exam.					

1- Required textbooks	(Laboratory Safety and Security Handbook) by Dr.R.Scott Stricoff and Dr. Douglas B. Walters.
2- Recommended Texts	Chemical Safety and Security guideline
3- Websites	1- Google scholar

12- Curriculum Development Plan
Add a permissible 10% of the source update



العميد

رئيس القسم

استاذ المادة