



Course Specification (2025)

1. Basic Information

Course Title (according to the bylaw)	Occupational Health and Safety			
Course Code (according to the bylaw)	B I 107			
Department/s participating in delivery of the course	-----			
Number of credit hours/points of the course (according to the bylaw)	Theoretical	Practical	Other (specify)	Total
	2	-----	-----	2
Course Type	Elective			
Academic level at which the course is taught	1 st year/ second Semester (2024- 2025)			
Academic Program	General Division for first-year students across three different departments (medical laboratory, Radiology and Prosthesis Manufacture) technology			
Institute	High Technology Institute of Applied Health Science			
Academy	Nile delta for Sciences and Technology			
Name of Course Coordinator	Dr. Aya Abd El-Hakeem Saeid Lecturer of biochemistry High Technology Institute of Applied Health Science PH. D Degree of biochemistry, faculty of science, Menofia university			
Course Specification Approval Date	9/21/2024			
Course Specification Approval (Attach the decision/minutes of the department /committee/council)	Department Council No. 2, date: (-9-2024) Institute Council No. 37, date: (-9-2024)			

2. Course Overview (Brief summary of scientific content)

- 1- This course provides the students with general knowledge of historical perspectives safety and health professions theories of accident causation, Moreover, it gives the information about regulatory history workers compensation, loss control programs injury and illness, safety audit accident investigation, computers and information management.

3. Course Learning Outcomes CLOs

Matrix of course learning outcomes CLOs with program outcomes POs (NARS/ARS)

Program Outcomes (NARS/ARS) (according to the matrix in the program specs)		Course Learning Outcomes Upon completion of the course, the student will be able to:	
Code	Text	Code	Text
POS.1	Demonstrate an understanding of fundamental knowledge of basic applied health sciences including (anatomy, physiology, physical chemistry, microbiology, general physics, mechanics, mechatronics,).	CLOs 1	Understand the importance of each concept in ensuring the overall well-being and safety of laboratory workers.
		CLOs 2	Describe general laboratory safety rules, including personal hygiene, housekeeping, and appropriate use of personal protective equipment (PPE).
		CLOs 3	Identify different types of chemical hazards in the laboratory (flammables, corrosive, reactive chemicals, and health hazards).
		CLOs 4	Identify common types of accidents and injuries in the laboratory, including burns, cuts, and choking.
		CLOs 5	Identify different methods of assessing and managing risk in the laboratory.
		CLOs 6	Recognize the role of fire safety

			protocols, including fire extinguisher usage and fire drills, in laboratory safety.
		CLOs. 7	Recognize the risks associated with radiation exposure, including potential cancers and long-term health effects.
POS.2	Realize some basic concepts of human rights.	CLOs. 1	Assess laboratory environments for potential hazards and propose effective safety measures to mitigate these risks.
		CLOs. 2	Analyze the causes and preventive measures for common laboratory accidents and injuries.
		CLOs .3	Evaluate the risks associated with exposure to biological and radiation hazards in the laboratory.
		CLOs.5	Evaluate the role of emergency preparedness and response planning in mitigating workplace risks.
POS.3	Realize the concept of quality.	CLOs.4	Evaluate the appropriateness of different types of PPE for specific laboratory tasks and hazard.
POS.4	Work safely in the lab environment and possess the basic competencies necessary for a range of practical techniques.	CLOs.1	Participate in developing emergency response plans potential laboratory hazards.
		CLOs.2	Demonstrate the proper use of PPE, including gloves, lab coats, goggles, and face shields. Demonstrate safe handling, storage, and disposal of chemicals in the laboratory.
		CLOs.3	Conducting root cause analysis of workplace incidents. Demonstrate

			basic first aid techniques for treating burns, cuts, and choking in a laboratory setting. Demonstrate the correct use of fire extinguishers and other fire safety equipment in the laboratory.
		CLOs.4	Demonstrate the use of radiation protection equipment and safety measures to minimize radiation exposure.
POS. 5	<p>D.1. Communicate effectively & develop collaborative relationships with all healthcare team.</p> <p>D.2. Manage multiple tasks and conduct research projects.</p> <p>D.3. Follow regulation of ethical practice and the rules of healthcare organizations.</p> <p>D.4. Adapt to new technologies and methods.</p> <p>D.5. Be Committed to learning, attending workshops & field training.</p> <p>D.6. Participate in teamwork harmoniously and exhibit collaborate effectively with colleagues and other health care professionals.</p> <p>D.7. Conduct research projects with a sense of social responsibility.</p> <p>D.8. Practice professionalism in all aspects of work.</p>	CLOs.1	Sharing knowledge and supporting others in safety-related tasks.
		CLOs.2	Motivating team members to follow safety procedures and take responsibility for workplace safety.
		CLOs. 3	Collaborating with nurses, doctors, lab techs, and cleaners to ensure safety protocols (e.g., PPE use, hand hygiene) are followed.

4. Teaching and Learning Methods

1. Interactive Lectures
2. Discussion and brain storming
3. Case study /problem solving
4. Research and presentation , Assignment and reports

5. Course Schedule

Number of the Week	Scientific content of the course (Course Topics)	Total Weekly Hours	Expected number of the Learning Hours			
			Theoretical teaching (lectures/discussion groups/)	Training (Practical/Clinical/)	Self-learning (Tasks/ Assignments/ Projects/ ...)	Other (to be determined)
1	Introduction in laboratory quality management system	2	2	0	---	---
2	A laboratory service network	2	2	0	---	---
3	Facilities and Safety of medical laboratory	2	2	0	---	---
4	Laboratory Biosafety: biosafety levels	2	2	0	---	---
5	Occupational Health Hazards	2	2	0	---	---
6	Mid Term					
7	MEDICAL WASTE	2	2	0	---	---
8	Cardiopulmonary Resuscitation	2	2	0	---	---
9	First aid 1	2	2	0	---	---
10	First aid 2	2	2	0	---	---
11	First aid 3	2	2	0	---	---
12	First aid 4	2	2	0	---	---
13	Cardiopulmonary Resuscitation	2	2	0	---	---
14	Revision	2	2	0	----	-----
15	Practical exam					
16	Final exam					

5. Methods of students' assessment

No.	Assessment Methods *	Assessment Timing (Week Number)	Marks/ Scores	Percentage of total course Marks
1	Exam 1 written (Semester work)	7	30	20%
2	Exam 2 (Semester work)	-----	-----	-----
3	Final Written Exam	15	70	50%
4	Final Practical/Clinical/... Exam	-----	-----	30%
5	Final Oral Exam	-----	-----	-----
6	Assignments / Project /Portfolio/ Logbook	-----	-----	-----
7	Field training	-----	-----	-----
8	Other (Mention)	-----	-----	-----

* The methods mentioned are examples, the organization may add and/or delete

6. Learning Resources and Supportive Facilities *

Learning resources (books, scientific references, etc.) *	The main (essential) reference for the course (must be written in full according to the scientific documentation method)	1- Occupational Health and Safety for the 21st Century First edition (2015), Jones & Bartlett Learning ISBN-10: 1284046036 .	
	Other References	1- Principles of Occupational Health and Hygiene: An Introduction (main title series by Sue Reed & co-editors) <i>1st Edition (approx. 2010–2012)</i> <i>Published by Allen & Unwin (Australia)</i> <i>ISBN-13: 9781743311295\</i> 2- Occupational Health and Safety Management: A Practical Approach <i>Publisher: CRC Press, 2003 (Feb 11), Format: Hardcover, 552 pp, ISBN-10: 1566706203.</i>	
	Electronic Sources (Links must be added)	1- https://librarycatalog.ecu.edu/catalog/3757549?utm 2- https://catalogue.nla.gov.au/catalog/6289823?utm . 3- https://www.amazon.com/Occupational-Health-Safety-Management-Practical/dp/1566706203?utm	
	Learning Platforms (Links must be added)	https://bislms.mans.edu.eg/moodle2024	

		added)			
		Other (to be mentioned)	https://www.ekb.eg/ar		
Supportive facilities & equipment for teaching and learning *	Devices/Instruments	Projector, Desktop Computer. First aid training charts (e.g., CPR steps, recovery position)			
	Supplies	Roller bandages, Gauze pads, Medical Gloves and a Glucometer			
	Electronic Programs	ابن الهيثم Model			
	Skill Labs/ Simulators	-----			
	Virtual Labs	-----			
	Other (to be mentioned)	-----			

*** The list mentioned is an example, the institution may add and/or delete depending on the nature of the course**

**Name and Signature
Course Coordinator**

**Name and Signature
Program Coordinator**