



## Module (Course Syllabus) Catalogue 2023-2024

College/ Institute	Erbil health and medical college	
Department	Medical Laboratory Technology-	
Module Name	Organization and management of laboratory	
Module Code		
Degree	Technical Diploma <input type="checkbox"/>	Bachelor <input checked="" type="checkbox"/>
	High Diploma <input type="checkbox"/>	Master <input type="checkbox"/> PhD <input type="checkbox"/>
Semester	eighth	
Qualification	Bachelor	
Scientific Title	Lecturer	
ECTS (Credits)	2	
Module type	Prerequisite <input type="checkbox"/>	Core <input checked="" type="checkbox"/> Assist. <input type="checkbox"/>
Weekly hours	1	
Weekly hours (Theory)	(1)hr Class	(35)Total hrs Workload
Weekly hours (Practical)	( )hr Class	( )Total hrs Workload
Number of Weeks	14	
Lecturer (Theory)	Ali Zainal Omar	
E-Mail & Mobile NO.	<a href="mailto:alizainal@epu.edu.iq">alizainal@epu.edu.iq</a>	
Lecturer (Practical)		
E-Mail & Mobile NO.	07504967882	
Websites		

## Course Book

<b>Course Description</b>	<p>This module (Management and organization of lab) is a major requirement for the department. It is based on lectures and it focuses on using interactive materials and assessments to plan and analyze plans for establishing and managing a laboratory. Organization of the laboratory medicine activity and the actual location of placement in the organization. Management and decision structure. The competence of different labor groups and their areas of responsibility. Communication and cooperation within the unit and the setting.</p>			
<b>Course objectives</b>	<ul style="list-style-type: none"> <li>•To familiarize with the core concepts and principles of medical ethics and clinical ethics;</li> <li>•The student should increase their technical and practical skills and develop a professional approach.</li> <li>• Understanding the responsibilities of managing a medical lab.</li> <li>• Ability to puts plans for the established laboratory.</li> <li>• Demonstrate the ability to apply these plans without losing any rights.</li> <li>• Ability to interact with different cultural and intellectual levels.</li> </ul>			
<b>Student's obligation</b>	<p>- <b>Student's obligation</b> Attendance in lecture is expected. You are responsible for everything covered, mentioned, discussed and displayed in class. If you miss a class, get a classmate's notes as my notes will not be available. You cannot excel in this course if you do not come to class.</p> <p>1- <b>Attendance:</b> students are strongly encouraged to attend class on a regular basis, as participation is important to understanding of the material. This is student opportunity to ask questions. Students are responsible for obtaining any information during the class which provided.</p> <p>2- <b>Lateness:</b> Lateness to class is disruptive</p> <p>3- <b>Electronic devices:</b> All cell phones are to be turned off at the beginning of class and put away during the entire class.</p> <p>4- <b>Talking:</b> During class please refrain from side conversations. These can be disruptive to your fellow students and your professor</p>			
<b>Required Learning Materials</b>	<ul style="list-style-type: none"> <li>- Printouts of weekly lectures taught at the college campus</li> <li>- Reviewing of internet</li> </ul>			
<b>Forms of teaching</b>	<p>The material will be presented at a level suitable for undergraduates by lecturing, discussion, video, power points and seminar</p>			
<b>Evaluation</b>	<b>Task</b>	<b>Weight (Marks)</b>	<b>Due Week</b>	<b>Relevant Learning Outcome</b>
	Paper Review			

	Assignments	Homework	5%		Encourages students to search for more detailed knowledge relevant to the topics taught at campus.
		Class Activity	2%		
		Seminar	10%		Enhances the preparation and presenting skills of the students
		report	10%		To make students engage more with their favorite topics
		Project			
	Quiz	8%		To encourage students, study every week.	
	Midterm Exam	25%		To evaluate students and their achievements at the middle of the term.	
	Final Exam	40%		Final evaluation and assessment.	
	Total	100%			
<b>Specific learning outcome:</b>	<p><b>By the end of this course learners will:</b></p> <p>Knowledge and understanding</p> <ul style="list-style-type: none"> <li>- describe organization and distribution of responsibility as well as how communication occurs</li> <li>- explain the significance of the different steps that secure quality in the activity</li> <li>- describe disease categories as well as diagnostic possibilities and methods for treatment follow up</li> <li>- explain some specific analyses and examinations including indication and test material, analysis principle, technical processing, result assessment as well as quality assurance. Skill and capability</li> <li>- apply testing ordinances and cooperate with the patient and relations</li> <li>- justify the importance of correct disposal of test materials</li> <li>- plan and carry out analyses and examinations within given time frames</li> <li>- process and critically interpret results</li> <li>- observe and handle deviations</li> </ul>				

	<ul style="list-style-type: none"> <li>- communicate and collaborate with different work categories</li> <li>- present and discuss activity</li> <li>-related tasks orally and in writing Evaluation capability and approach</li>   <li>- discuss the medical importance of results attained from analysis and examination - notice ethical problems - plan expenditure of materials and correct handling of infectious agents, chemicals and waste - discuss one's</li> </ul>	
<b>Course References:</b>	<ul style="list-style-type: none"> <li>• Books:</li> <li>1- Laboratory Management Quality in Laboratory Diagnosis Candis A. Kinkus, MBA</li> <li>2-Laboratory quality management system WHO 2011</li> <li>3- Turgeon, Mary Louise. (2015). Clinical Laboratory Science, 7th ed. Maryland Heights, MO: Mosby. ISBN 9780323225458</li> </ul>	
<b>Course topics (Theory)</b>	<b>Week</b>	<b>Learning Outcome</b>
Introduction to lab. Management, accuracy, reliability and reporting must be timely	First	
Facility and safety	Second	
Equipments	Third	
Process control and sample management	Fourth	
Process control—introduction to quality control	Fifth	
Process control—quality control for quantitative tests	Sixth	

Process control—quality control for qualitative and semi-quantitative procedures	Seventh	
Assessment—audits	Eighth	
Assessment—external quality assessment	Ninth	
Assessment—norms and accreditation	Tenth	
Personnel	Eleventh	
Medical Waste product management	Twelfth	
Electrical risk in lab	Thirteenth	
Fire management in lab.	Fourteenth	

### **Questions Example Design (theoretical and practical exam):**

All of the activities provided in the workload section are considered when awarding you a grade for this course. In order to pass this course, you will need to earn a 60% or higher on the final exam. Your score on the exam will be calculated as soon as you complete it. If you do not pass the exam on your first try, you may take it again in the second trial.

- Type of the exam (composition and multiple choice)
- Exam's duration (for example one hour)
- The number of the questions: at least four questions. The marks distributed evenly throughout.

The answer should contain preface, main contents and conclusion.

Example

#### **Q1/ Do as required answer only three of them**

1-According to standard laboratory design the floor and wall of laboratory must be finished with some materials and properties mention them.

2-What are the main sources of cross-contamination in laboratory during working?

3-What mean by calibration, and when should be done?

4-What are the main characteristics of biosafety cabinet class III?

5-Write aspects of prevention electrical hazard in laboratory

**Q2/Fill in blanks with suitable answer**

1-.....,....., and .....are the appropriate extinguisher for flammable liquids, CO2 and gases

2- Hazardous healthcare waste include-....., ....., ....., and .....

3-Medical sample must be rejected in some circumstance such as: -....., ....., ....., and .....

4-Laboratory quality can be defined as ....., ....., and .....of reported test results.

5-..... and ..... Are refer to international laboratory standard organization.

6-There are a number of tools that are useful for laboratory process improvement which are - ..... and .....

**Extra notes:**

**External Evaluator**