

Module (Course Syllabus) Catalogue 2022-2023

College/ Institute	Erbil Medical Technical Institute	
Department	MLT Department	
Module Name	Lab.Technology	
Module Code	LAT205	
Degree	Technical Diploma <input checked="" type="checkbox"/> Bachler <input type="checkbox"/> High Diploma <input type="checkbox"/> Master <input type="checkbox"/> PhD <input type="checkbox"/>	
Semester	2rd	
Qualification	Master degree	
Scientific Title	lecturer	
ECTS (Credits)	7	
Module type	Prerequisite <input type="checkbox"/> Core <input checked="" type="checkbox"/> Assist. <input type="checkbox"/>	
Weekly hours	4	
Weekly hours (Theory)	(2)hr Class	(3)Total hrs Workload
Weekly hours (Practical)	(2)hr Class	(1)Total hrs Workload
Number of Weeks	16	
Lecturer (Theory)	Sevan Hassan Bakir	
E-Mail & Mobile NO.	Sevan.bakir@epu.edu.iq	
Lecturer (Practical)	Sevan Hassan Bakir	
E-Mail & Mobile NO.	Sevan.bakir@epu.edu.iq	
Websites	https://academicstaff.epu.edu.iq/faculty/muharam.mohammed	

Course Book

Course Description	This course aims to provide a comprehensive theoretical knowledge of medical microbiology diagnosis technique and medical physiology disorder, diagnosis of disease disorder of human system and advanced practical training in this diverse field.				
Course objectives	<ul style="list-style-type: none"> - Demonstrate and understanding of basic laboratory technique on the medical microbiology examination of disease. - Demonstrate an understanding of basic concepts of medical physiology disorder, diagnosis of disease disorder of human system and advanced practical training in this diverse field. <hr/> Have advanced skills on processing blood and physiological analysis and disease diagnosis.				
Student's obligation	The student attention in all theoretical and practical lectures in academic year. 2-Completion of all tests. 3-Attendance in exams. 4-Write or prepare reports.				
Required Learning Materials					
Evaluation	Task		Weight (Marks)	Due Week	Relevant Learning Outcome
	Paper Review		1	1	
	Assignments	Homework	0.5	4	
		Class Activity	2	2	
		Report	1	1	
		Seminar	1	1	
Essay		0	0		

	Project	0	0	
	Quiz	1	4	
	Lab.	2	12	
	Midterm Exam	1	2	
	Final Exam	1	3	

Specific learning outcome:	<p>On successful completion of this program, graduates will be able to identify, evaluate and apply major theoretical traditions in medical microbiology and medical physiology studies, also understanding how the human body work. And personal save.</p> <ul style="list-style-type: none"> - Demonstrate the ability to think critically and solve problems in a laboratory setting - Ability to apply knowledge in practice - Ability to search for process and analyse information from a variety of sources
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Course References:	<ul style="list-style-type: none"> - Course Reading List and References: 1- Manual of medical Laboratory Techniques S Ramakrishnan and KN Sulochana. JAYPEE. 2012 2- Text book of medical physiology, 11th edition, C. Guyton, M.D. 3- Diagnostic Microbiology. Bailey and Scott's. 13 edition 2014
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Course topics (Theory)	Week	Learning Outcome
Sterilization methods & disinfection with difference physical and chemical methods	13/2/2020	Student be able to know the methods of sterilization and the differences between sterilization and disinfection
Examination of Urine samples	20/2/2020	Be able to know the methods of urine analysis in laboratory
Culture media , types , and methods of culturing media	28/2/2020	Be able to know every types of culture media and the types of culturing
Examination of stool samples	5/3/2020	Be able to know every methods in stool examination in laboratory
Examination of throat , ear , swabs, burns and wound	12/3/2020	Be able how to take sample from patients need these types of examination
Examination of sputum or respiratory secretion	26/3/2020	Be able how to take sample sputum and how to analysis

Examination of semen samples	2/4/2020	Be able how to take sample semen and how to analysis
Examination of cerebrospinal fluid (CSF)	9/4/2020	Be able how to take sample CSF and how to analysis
How to identification bacteria, Vitek2 compact system	16/4/2020	Be able to knowing about the vitek2 compact system
Serology test (reaction) antigen –antibody interaction	23/4/2020	Be able to know about serological methods in diagnosing disease
Immunoassay sorbent (ELIZA)	30/4/2020	Be able to know on this apparatus ELIZA
Complete blood count	7/5/2020	Be able to knowing on how counting blood component by colter apparatus
Practical Topics (If there is any)	Week	Learning Outcome
Sterilization methods& disinfection with difference physical and chemical methods	9/2/2020	Student be able to know the methods of sterilization and the differences between sterilization and disinfection
Examination of Urine samples	16/2/2020	Be able to know the methods of urine analysis in laboratory
Culture media , types , and methods of culturing media	23/2/2020	Be able to know every types of culture media and the types of culturing
Examination of stool samples	1/3/2020	Be able to know every methods in stool examination in laboratory
Examination of throat , ear , swabs, burns and wound	8/3/2020	Be able how to take sample from patients need these types of examination
Examination of sputum or respiratory secretion	15/3/2020	Be able how to take sample sputum and how to analysis
Examination of semen samples	29/3/2020	Be able how to take sample semen and how to analysis
Examination of cerebrospinal fluid (CSF)	5/4/2020	Be able how to take sample CSF and how to analysis
How to identification bacteria, Vitek2 compact system	12/4/2020	Be able to knowing about the vitek2 compact system
Serology test (reaction) antigen –antibody interaction	19/4/2020	Be able to know about serological methods in diagnosing disease
Immunoassay sorbent (ELIZA)	26/4/2020	Be able to know on this apparatus ELIZA
Complete blood count	3/5/2020	Be able to knowing on how counting blood component by colter apparatus

Examinations (question design):

1. Compositional

What are the steps for collection swabs from infected throat

2. True or false type of exams:

1- anaerobic bacteria mean that the bacteria do not need oxygen for their growth

3. Multiple choices:

1- for taking sample from otitis media without discharge it must be done by:

a- swab b- aspiration c- saliva

- Extra notes:

- External Evaluator

The outcome of course book evaluation is commonly more explicit and follows the principles and rules in general.

Tahseen Abdah Abdulla

