

(Lab.Technology) Course Catalogue

2023-2024

College/ Institute	Medical Technical Institute	
Department	Medical Laboratory Technology	
Module Name	Lab.Technology	
Module Code	LAT205	
Semester	2	
Credit	7	
Module type	General	
Weekly hours	4	
Weekly hours (Theory)	(2)hr Class	(3)hr Workload
Weekly hours (Practical)	(2)hr Class	(1)hr Workload
Lecturer (Theory)	Rezhna Adil Rasheed	
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Lecturer (Practical)	Rezhna Adil Rasheed	
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Course Book

<p>- Course overview: 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.</p>		
<p>- Course objective: - 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. - Have advanced skills on processing blood and physiological analysis and disease diagnosis.</p>		
<p>- Student's obligation 1-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.</p>		
<p>- Forms of teaching lecture halls with data show equipment for lecture presentations, white board, overhead projector, posters</p>		
<p>- Assessment scheme 6% Mid. Theory exam 10% Mid. practical exam 4% Quiz 40% Activity 25% final practical 15% final theory</p>		
<p>- Specific learning outcome: 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. - 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</p>		
<p>- 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</p>		
- Course topics (Theory)	Week	Learning Outcome
Sterilization methods& disinfection with different physical and chemical methods	1	Student be able to know the methods of sterilization and the differences between sterilization and disinfection
Examination of Urine samples	2	Be able to know the methods of urine analysis in laboratory
Culture media , types , and methods of culturing media	3	Be able to know every types of culture media and the types of culturing
Examination of stool samples	4	Be able to know every methods in stool examination in laboratory

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Examination of throat , ear , swabs, burns and wound	5	Be able how to take sample from patients need these types of examination
Examination of sputum or respiratory secretion	6	Be able how to take sample sputum and how to analysis
Examination of semen samples	7	Be able how to take sample semen and how to analysis
Examination of cerebrospinal fluid (CSF)	8	Be able how to take sample CSF and how to analysis
How to identification bacteria, Vitek2 compact system	9	Be able to knowing about the vitek2 compact system
Serology test (reaction) antigen –antibody interaction	10	Be able to know about serological methods in diagnosing disease
Immunoassay sorbent (ELIZA)	11	Be able to know on this apparatus ELIZA
Complete blood count	12	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 different physical and chemical methods	1	Student be able to know the methods of sterilization and the differences between sterilization and disinfection
Examination of Urine samples	2	Be able to know the methods of urine analysis in laboratory
Culture media, types, and methods of culturing media	3	Be able to know every types of culture media and the types of culturing
Examination of stool samples	4	Be able to know every methods in stool examination in laboratory
Examination of throat, ear, swabs, burns, and wound	5	Be able how to take sample from patients need these types of examination
Examination of sputum or respiratory secretion	6	Be able how to take sample sputum and how to analysis
Examination of semen samples	7	Be able how to take sample semen and how to analysis
Examination of cerebrospinal fluid (CSF)	8	Be able how to take sample CSF and how to analysis
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