



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Allied Medical Sciences Department

LM337 Diagnostic Immunology And Serology Practical - JNQF Level: 7

First Semester 2023-2024

Course Catalog

1 Credit Hours. This practical course introduces students to the main techniques used in clinical immunology and serology laboratories. Topics covered include common serological tests such as agglutination reactions, precipitation reactions, complement fixation test (CFT), hemagglutination, ELISA, immunoelectrophoresis, and direct and indirect immunofluorescent assays.

Teaching Method: On Campus

Text Book

Title	Clinical Immunology and Serology: A Laboratory Perspective
Author(s)	Christine Dorresteyn Stevens and Linda E. Miller
Edition	5th Edition
Short Name	Ref 1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref 2	Laboratory Manual	XX	1st Edition	

Instructor

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Instructor

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Class Schedule & Room
<p>Section 1: Lecture Time: Mon : 08:30 - 10:30 Room: LAB 1</p> <p>Section 2: Lecture Time: Mon : 10:30 - 12:30 Room: LAB 1</p> <p>Section 3: Lecture Time: Mon : 12:30 - 14:30 Room: LAB 1</p> <p>Section 4: Lecture Time: Tue : 14:30 - 16:30 Room: LAB 1</p> <p>Section 5: Lecture Time: Wed : 08:30 - 10:30 Room: LAB 1</p>

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction	From Ref 1 , From Ref 2
Week 2	Sample processing and dilution	From Ref 1 , From Ref 2
Week 3	Agglutination/ Hemagglutination Reactions	From Ref 1 , From Ref 2
Week 4	Widal Test & Rose Bengal test	From Ref 2
Week 5	C-Reactive Protein (CRP) test, Rheumatoid Factor (RF) test, and Anti-Streptolysin O (ASO) test	From Ref 1 , From Ref 2
Week 6	Cold Agglutinin	From Ref 1 , From Ref 2
Week 8	Precipitation Reactions (Double immunodiffusion (Ouchterlony method), and Radial Immunodiffusion (RID))	From Ref 1 , From Ref 2
Week 9	Serum Protein Electrophoresis & Immunofixation	From Ref 1 , From Ref 2
Week 10	Complement Fixation Test	From Ref 2

Week 11	Enzyme Linked Immunosorbent Assay (ELISA)	From Ref 1 , From Ref 2
Week 12	Immunofluorescence	From Ref 1 , From Ref 2

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Identify the fundamental principles of immunology and their relevance to diagnostics. [1SLO2] [1L7K1]	10%	
Explain the principles of the main immunological techniques. [1SLO2] [1L7K1]	25%	
Demonstrate ability to handle and process clinical samples in the immunology laboratory. [1SLO2] [1L7S2]	10%	
Demonstrate proficiency in performing various immunological laboratory techniques. [1SLO2] [1L7S2]	25%	
Troubleshoot and resolve issues encountered during diagnostic procedures. [1SLO2] [1L7S1]	10%	
Interpret immunological test results accurately. [1SLO3] [1L7C2]	20%	

Relationship to Program Student Outcomes (Out of 100%)											
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	MSLO1	MSLO2	MSLO3	MSLO4	MSLO5	MSLO6
	80	20									

Relationship to NQF Outcomes (Out of 100%)			
L7K1	L7S1	L7S2	L7C2
35	10	35	20

Evaluation	
Assessment Tool	Weight
Reports	10%
Quizzes	10%
Midterm	30%
Final	50%

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