



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

LM335 Diagnostic Immunology And Serology - JNQF Level: 7

First Semester 2023-2024

Course Catalog

2 Credit Hours. This course provides students with the knowledge required for the performance of diagnostic tests in immunology and serology laboratories. It covers essential theoretical principles along with the most commonly used techniques in the lab. The first part of this course introduces students to the different commonly used techniques in clinical immunology and serology labs. The second part of this course focuses on the applications of these techniques in the diagnosis of different types of infectious diseases and immunological disorders. The course is complemented by a practical laboratory course (LM 337).

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	Text book
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref # 2	Essential Clinical Immunology	Edited by: John B. Zabriskie	1st Edition	
Ref # 3	Clinical Immunology: Principles and Practice	Robert R. Rich, Thomas A Fleisher, William T. Shearer, Harry Schroeder, Anthony J. Frew, Cornelia M. Weyand	5th Edition	
Ref # 4	Practical Immunology	Frank C. Hay, Olwyn M. R. Westwood	4th Edition	

Instructor

Name	Dr. Hassan Kofahi
Office Location	M6 L0
Office Hours	Sun : 10:30 - 12:30 Mon : 11:30 - 12:30 Wed : 10:00 - 11:30 Thu : 10:30 - 12:00
Email	hmkofahi@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Sun, Thu : 09:30 - 10:30 Room: NB49

Tentative List of Topics Covered		
Weeks	Topic	References
Weeks 1, 2	Revision of the basic Immunological concepts	From Text book
Weeks 3, 4, 5, 6, 7, 8, 9, 10	Basic immunological procedures a. Safety in the immunology lab b. Specimen preparation, dilution and titers c. Precipitation reactions, serum protein electrophoresis and Immunofixation. d. Agglutination reactions e. Complement fixation. f. Labelled immunoassays i. Radioimmunoassay ii. Enzyme immunoassay (ELISA) iii. Fluorescent immunoassay iv. Chemiluminescent immunoassay v. Biotin-Avidin system of labelling g. Western blotting h. Flow cytometry	From Text book , From Ref # 3
Weeks 11, 12	Serological diagnosis of infectious diseases: a) Serological detection of bacterial infections. b) Serological detection of viral infections.	From Text book
Weeks 13, 14	Immune disorders: a) Autoimmunity. b) Hypersensitivity.	From Text book

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 its relevance to diagnostics. [1SLO1] [1L7K1]	8%	
Explain the principles of the main immunological techniques. [1SLO2] [1L7K1]	20%	
Describe the immunological abnormalities and infectious diseases. [1SLO1] [1L7K1]	7%	
Demonstrate ability to handle and process clinical samples in the immunology laboratory. [1SLO2] [1L7S2]	7%	
Demonstrate proficiency in performing various immunological laboratory techniques. [1SLO2] [1L7S2]	13%	
Troubleshoot and resolve issues encountered during diagnostic procedures. [1SLO2] [1L7S1]	10%	

Interpret immunological test results accurately and conclude the most likely diagnosis of cases based on laboratory test results. [1SLO3] [1L7C2]	25%	
Demonstrate the ability to select suitable techniques for performing immunological laboratory tests. [1SLO2] [1L7C1]	10%	

Relationship to Program Student Outcomes (Out of 100%)											
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	MSLO1	MSLO2	MSLO3	MSLO4	MSLO5	MSLO6
15	60	25									

Relationship to NQF Outcomes (Out of 100%)				
L7K1	L7S1	L7S2	L7C1	L7C2
35	10	20	10	25

Evaluation	
Assessment Tool	Weight
First	30%
Second	30%
Final	40%

Policy	
Attendance Policy	Students are expected to attend at least 80% of lectures.
Missed Exam policy	Students who miss the first or the second exam without a legitimate excuse will automatically receive 0 points for that exam. Students who miss the final exam will receive an "incomplete" result for the course. Only students with legitimate excuses will be allowed to make up missed exams. It is the student's responsibility to immediately start the process of excuse acceptance according to university regulations and to contact the instructor of the course to schedule the makeup exam.

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