



مركز الاعتماد
وإضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER



The University of Jordan

Accreditation & Quality Assurance Center

COURSE Syllabus

Course Name:

Diagnostic Immunology and Serology.

1	Course title	Diagnostic Immunology and Serology.
2	Course number	(0504712)
3	Credit hours (theory, practical)	2 hours theory, 1 hour practical
	Contact hours (theory, practical)	2 hours theory, 2 hours practical
4	Prerequisites/corequisites	Diagnostic microbiology-1 and 2
5	Programtitle	Masters in DEGREE IN MEDICAL LABORATORY SCIENCES
6	Programcode	
7	Awarding institution	University of Jordan
8	Faculty	Medicine
9	Department	Pathology, Microbiology & Forensic Medicine
10	Level of course	Postgraduate
11	Year of study andsemester(s)	2016-2017 First Semester
12	Final Qualification	M. Sc.
13	Other department(s) involved in teaching the course	None
14	Language of Instruction	English
15	Date of production/revision	Nov.2016

16. Course Coordinator:

Dr. Hassan Abualragheb, Office number 212, Office hours 10.00 – 12.00 AM, Tel ++962 6 5355000 Ext. 23495,
E.mail har1947@ju.edu.jo

17. Other instructors:

Prof. Mohammad El-Khatib,

18. Course Description:

This course is intended to introduce fundamental and important aspects of the various immunological and serological methods used in laboratory diagnosis of disease, with insight into the basic mechanisms and reactions involved in such methods. It is also intended to give a background to the particular tests used for various diseases and their normal and abnormal status.

19. Course aims and outcomes:**A- Aims:**

By the end of this course the students should be knowledgeable of :-

1. Basic concepts of humoral and cell-mediated immunity.
2. Basic structure of antigens and immunoglobulins.
3. Antigen and antibody interactions, precipitation and agglutination and their application to diagnostic tests.
4. Diagnostic methods and their basic mechanisms, which use radioactive, immunofluorescent and enzyme labels.
5. Complement activation and its application to diagnostic methods.
6. Basic concepts of immunological disturbances in the following pathological conditions and the methods used for their detection
 - a. Autoimmunity.
 - b. Immunodeficiency.
 - c. Hypersensitivity.
 - d. Viral, bacterial and parasitic infections.
7. Tumour markers.
8. Principles of tissue typing and its application to transplantation.

B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to...

A. Knowledge and Understanding: Student is expected to understand

A1- Basic mechanisms of immunological reactions and their application in the laboratory.

A2- Disease abnormality that involve such reactions and the way diagnosis is made.

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B. Intellectual Analytical and Cognitive Skills: Student is expected to

B1- Understand principles and methods of diagnosis using immunological and serological methods

B2- Appreciate technical skills involved in carrying out such tests

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C. Subject- Specific Skills: Students is expected to

C1- To know the various immunological and serological tests used in diagnosis

C2- To know the application of such tests to relevant cases of disease

C3- Grasp of technical skills required for these tests.

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D. Transferable Key Skills: Students is expected to

D1- To be able to transfer knowledge to health professional colleagues.

D2- To be able to transfer instructions to patients.

20. Topic Outline and Schedule:

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
Introduction	one	Dr. Hassan Abualragheb			
Antigen-antibody interaction	two	Dr. Hassan Abualragheb			

Precipitation & immunodiffusion	three	Dr. Hassan Abualragheb			
Agglutination	four	Dr. Hassan Abualragheb			
Complement	five	Dr. Hassan Abualragheb			
Immuno-fluorescence & Radio-immunoassay	six	Dr. Hassan Abualragheb			
ELISA	seven	Dr. Hassan Abualragheb			
HLA and Transplantation	eight	Dr. Hassan Abualragheb			
Auto-immunity	nine	Dr. Hassan Abualragheb			
Immunodeficiency	ten	Dr. Hassan Abualragheb			
Hypersensitivity	eleven	Dr. Hassan Abualragheb			
Tumor markers	twelve	Dr. Hassan Abualragheb			
Diagnostic immunology of viral diseases	thirteen	Dr. Hassan Abualragheb			
Diagnostic immunology of bacterial and parasitic diseases	fourteen	Dr. Hassan Abualragheb			
Practical sessions	Go along with the seminars	Prof Mohammad El-Khatib			

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

Seminars and presentations prepared and given by the student

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Mid Exam MCQ and short answers (20%)

Attendance and Seminars (10%)

Final Theory Exam MCQ and short answers (40%)

Practical Exam (30%)

23. Course Policies:

A- Attendance policies:

Regular checking for attendance of seminars and practical sessions

B- Absences from exams and handing in assignments on time:

Repeat exams are carried out for absent students with a valid excuse.

C- Health and safety procedures:

Students are instructed about hazards and safety procedures when working in the Microbiology Lab.

D- Honesty policy regarding cheating, plagiarism, misbehavior:

These are not tolerated with suitable punishment applied.

E- Grading policy:

Letter Grading : A, A-, B+, B, B-, C+, C.

F- Available university services that support achievement in the course:

Libraries, Computer labs, Microbiology lab. Faculty of Medicine and Jordan University Hospital

24. Required equipment:

Lab coats are required for practical sessions.

25. References:

A- Required book (s), assigned reading and audio-visuals:

B- Recommended books, materials, and media:

1. Medical Immunology. Edit. TG Parslow, DP Stites, Al Terr and JB Imboden. Lange. Latest edition.
2. Clinical Immunology and Serology. Edit. Christine Dorresteyn Stevens. F.A. Davis Company. Latest edition

Additional References:

- 3- Immunology and serology Teaching Websites

26. Additional information:

None

Name of Course Coordinator: -----Signature: ----- Date: -----

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- -Signature: -----

Copy to:

Head of Department
Assistant Dean for Quality Assurance
Course File