



Kurdistan Region-Iraq
Paitaxt Private Technical Institute
Department of Pathological Analytics

Department of Pathological Analysis

Subject: Clinical Immunology

Second year:2023/2024

1-Course Name	Clinical immunology
2-Lecturer in charge	
3-Department/ College	Pathological Analytics/ Paitaxt Institute
4-Contact	
5-Time (In hours) per week	Theory: 2 hours Practical :2 hours
6-Office Hours	Available during week
7- Course Code	

8- Teacher's academic profile	<i>Education</i> • Date: 2001 – 2005 “Bachelor in cellular & molecular biology, Tonekabon University, Iran. • Date: 2011 – 2013 MSc. Degree; Biotechnology, Jagellonian University, Poland.
9- Keywords	Hypersensitivity, Immune deficiency, Autoimmunity, Transplantation, Vaccination.
10- Course Overview: This module will provide students with an introduction to the area of clinical immunology, providing a basic scientific knowledge and understanding of immunology as a healthcare science discipline. Students will gain an appreciation of the role of clinical immunology and other blood science disciplines, in the investigation and management of disease, and will be equipped with the knowledge of principles of associated analytical techniques.	
11- Course Objective: Students will; - Know classification of immune system disease. - Know 4 Types of Hypersensitivity and disease, caused by each type. - Understand the mechanism of allergy and methods for detection. - Knows Autoimmune disease - Learn the structure and function of Antibodies and technics to detect antibody mediated disease. - Know Immune deficiency disease and causes. - Learn important factors in transplantation. - Learn serology technics for detecting kind of venereal, Immune deficiency, auto immune disease.	
12- 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- Participating in class discussion.	
13- Forms of Teaching - The main teaching method is standing on explain basic points on PowerPoint. - Sending animation videos about each subject to better understanding the process. - Using flash cards in the end of each lecture to remind and connected the information. - Asking challenging question in the start and end of the lecture to verify what percent of lecture is understood by students.	
14- Assessment scheme Final exam: 50 marks (20 theory, 30 practical) Midterm-exams: 50 marks (20 theory, 20 practical and 10 marks for activity& attendance)	
15- Student Learning Outcome:	

After the course, the student will be able to describe:

- Immune disease classification. -
- How allergy reaction promote.
- They also be able to describe immune deficiency conditions.

16- Course Reading list and References:

- Kuby immunology 6th edition.
- Cellular & Molecular Immunology 9th edition, Abul K.abbas

17- The Topics

No	Lecture's titles (Theory)	Practical	2Hrs/Week
1	Short review to basic immunology	Shortly about serology and how serology kits are working	4hr
2	Hypersensitivity responses Type I	Food allergy (celiac test)	4hr
3	Food allergy, Anaphylaxis, Asthma	Rose Bengal Test (Brucella)	4hr
4	Hypersensitivity Type II-IV	ELISA	4hr
5	Autoimmunity	Detection of Syphilis (RPR or VDRL)	4hr
6	Autoimmune hematological condition (Neutropenia, thrombocytopenia, hemolytic anemia)	Anti streptolysin O (ASO)	4hr
7	Autoimmune gastroenterological disorders (coeliac, pernicious anemia)	ANA Test	4hr
8	Autoimmune endocrinological disorder (Thyroid disease, parathyroid disease)	HBs Ag	4hr

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9	Midterm Exam	Midterm Exam	-	
10	Vaccination	Covid-19 Test	4hr	
11	Transplantation & Allo-immunology	CMV Test	4hr	
12	immunodeficiency	HIV test	4hr	
13	Response of immune system to infections	Widal Test	4hr	
14	Review	Review	4hr	
15	Final exam	Final	-	

18- Examinations:

Question Styles

Q1. Type I hypersensitivity mediated by:

- a. T cell
- b. IgE
- c. IgM
- d. B cell

Q2. Explain two roles of cytokine in Hypersensitivity?

Q3. Mast cells located in the..... .. and basophils located in the

Q4. Explain two process which promote by Immune complex.

Q5. Which Type of disease is Autoimmune:

- a. Cancer
- b. Inflammatory disease
- c. Asthma
- d. None of Above

19- Extra notes:

20-Peer Review

Signature

Good Luck