

TISHK INTERNATIONAL UNIVERSITY
FACULTY OF APPLIED SCIENCE
Department of MEDICAL ANALYSIS,
-2022 Fall

Course Information for MA 215 IMMUNOLOGY AND CLINICAL IMMUNOLOGY I

Course Name: IMMUNOLOGY AND CLINICAL IMMUNOLOGY I					
Code MA 215	Regular Semester 3	Theoretical 2	Practical 2	Credits 3	ECTS 4
Name of Lecturer(s)- Academic Title: Tola Faraj - PhD					
Teaching Assistant: Chnar Hussam					
Course Language: English					
Course Type: Main					
Office Hours Tuesday 09:00-11:00					
Contact Email: tola.faraj@tiu.edu.iq Tel:07509988344					
Teacher's academic profile: Medical Immunology					
Course Objectives: Immunology is a diverse and growing discipline that can be defined as the study of the tissues, cells and molecules involved in host defense mechanisms. Immunologists attempt to understand how the immune system develops, how the body defends itself against disease, and what happens when it all goes wrong. The following are the learning objectives for the MA 215 Immunology, the students will be able to_ 1. Identify the cellular and molecular basis of immune responsiveness. 2. Describe the roles of the immune system in both maintaining health and contributing to disease. 3. Describe immunological response and how it is triggered and regulated. 4. Demonstrate a capacity for problem-solving about immune responsiveness. 5. Transfer knowledge of immunology into clinical decision-making through case studies presented in class.					
Course Description (Course overview): The immune system governs defense against pathogens and is of importance for the development of autoimmune diseases, allergy and cancer. The course discusses basic immunology including cellular and molecular processes that represent the human immune system. Subjects to be presented include cells and organs of the immune system, antigen, immunoglobulins and antibody diversity, molecular mechanisms of innate and adaptive immunity, the complement system, antigen presentation, cell-mediated effector responses, mucosal immunity and select lectures on the immune system in health and disease.					

COURSE CONTENT

Week	Hour	Date	Topic
1	2	4-7/10/2021	Class policy, Lab safety
2	2	10-14/10/2021	Immunity (Introduction and Terminology)
3	2	17-21/10/2021	Innate Immunity: The Early Defense Against Infections
4	2	24-28/10/2021	General Features and Specificity of Innate Immune Responses
5	2	31/10-4/11/2021	Components of Innate Immunity
6	2	7-11/11/2021	Role of Innate Immunity in Stimulating Adaptive Immune Responses
7	2	14-18/11/2021	Midterm Exam
8	2	21-25/11/2021	Adaptive Immunity
9	2	28/11-2/12/2021	Cells of the Immune System
10	2	5-9/12/2021	Tissues of the Immune System
11	2	12-16/12/2021	Antigens
12	2	19-23/12/2021	Antibodies

13	2	26-30/12/2021	Humoral Immunity
14	2	2-6/1/2022	Cell-Mediated Immunity
15	2	9-13/1/2022	Final Exam
16	2	16-20/1/2022	Final Exam

COURSE/STUDENT LEARNING OUTCOMES

- 1 After completing the course MA 215 Immunology, the student should be able to: Reveal the basic knowledge of immunological processes at a cellular and molecular level.
- 2 Describe central immunological principles and concepts.
- 3 Outline the key mechanisms of innate and adaptive immunity and how they relate.
- 4 Identify the main mechanisms of inflammation.
- 5 Explain the key events and cellular players governing mucosal immunity.

COURSE'S CONTRIBUTION TO PROGRAM OUTCOMES

(Blank : no contribution, I: Introduction, P: Proficient, A: Advanced)

Program Learning Outcomes

Cont.

1	Evaluate clinical laboratory data by interpreting laboratory results and relating the data to various disease states.	A
2	apply principles of evidence-based medicine to determine clinical diagnoses.	P
3	apply the basic principles of gross and microscopic anatomy, physiology, biochemistry, immunology, microbiology/virology.	A
4	formulate and implement acceptable treatment modalities to various disease states.	I
5	use technology effectively in the delivery of instruction, assessment, and professional development.	A
6	exhibit essential employability qualities by demonstrating laboratory safety, analyzing laboratory results, and displaying professional conduct.	A
7	exhibit organizational skills, accountability, and ethical behavior.	A
8	apply skills needed in operating laboratory equipment for testing, assessing quality assurance for lab equipment, and adhering to standard safety practices in the laboratory environment.	A
9	apply problem-solving and decision-making skills.	P
10	apply and promote health policies and regulatory standards in the field career.	P
11	develop research in the field of medical analysis using qualitative and quantitative methods.	A

Prerequisites (Course Reading List and References):

1. Medical Microbiology & Immunology, Examination & Board Review, eighth edition, Warren Levinson, MD, PhD, Professor of Microbiology, Lange Medical Books/McGraw-Hill. 2. BASIC IMMUNOLOGY Functions and Disorders of the Immune System, FIFTH EDITION, Abul K.

Student's obligation (Special Requirements):

* Examination Policy: Student Should take 2 exams (mid-term and final exams) during the course in addition to the course activities, quizzes, reports and participation during the classes, there will be no make-up exams for students who have been absent during the exam date without a medical report. * Classroom policies: 1. Attendance_ Students are strongly encouraged to attend class on a regular basis, as participation is important to understand topics and it is a vital opportunity to raise questions and get responses. 2. Lateness_ Lateness to class is disruptive, and this adversely will affect the educational process during the class. 3. Electronic devices_ All cell phones need to be turned off at the beginning of class and put away during the entire class. 4. Talking_ During class please refrain from side conversations. Again these can be disruptive to your classmates and the course lecturer

Course Book/Textbook:

Medical Microbiology & Immunology, Examination & Board Review, eighth edition, Warren Levinson, MD, PhD, Professor of Microbiology, Lange Medical Books/McGraw-Hill.

Other Course Materials/References:

BASIC IMMUNOLOGY Functions and Disorders of the Immune System, FIFTH EDITION, Abul K. Abbas, Andrew H. Lichtman, Shiv Pillai, Elsevier.

Teaching Methods (Forms of Teaching):

Lectures, Practical sessions, Presentation, Seminar, Assignments, , ,

COURSE EVALUATION CRITERIA

Method	Quantity	Percentage (%)
Attendance	1	5
Quiz	1	10
Midterm Exam	1	20