



Jordan University of Science and Technology
Faculty of Medicine
Doctor Of Medicine (Md) Department

MED133 Immunology
Summer Semester 2022-2023

Course Catalog
3 Credit Hours. This general immunology course will cover the basic concepts of our immune system including immunology terminology concepts, definitions, anatomy and the innate and adaptive arms of the immune system. It also covers cells and organs of our immune system, physiology of cells and organs of the immune system and different cytokines involved in the immune mechanisms. The course will introduce the students to the role of Immune system in fighting microbes and tumors and the immune system role in transplantation medicine. It will also cover immunodeficiency and hypersensitivity reactions of the immune system and different immuno-diagnostic techniques.

Text Book	
Title	Cellular and Molecular Immunology
Author(s)	Abul K. Abbas, Andrew H. Lichtman, Shiv Pillai
Edition	10th Edition
Short Name	Cellular and Molecular Immunology
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Immunology for Medical Students	Immunology for Medical Students	Matthew Helbert	3rd Edition	

Instructor	
Name	Prof. Hamed Alzoubi
Office Location	-
Office Hours	
Email	hmalzoubi6@just.edu.jo

Class Schedule & Room

Section 1:

Lecture Time: Sun, Tue : 17:00 - 18:30

Room: متزامن الحضور منصة الكترونية

Section 2:

Lecture Time: Sun, Tue : 18:30 - 20:00

Room: متزامن الحضور منصة الكترونية

Section 3:

Lecture Time: Mon, Wed : 17:00 - 18:30

Room: متزامن الحضور منصة الكترونية

Section 4:

Lecture Time: Mon, Wed : 18:30 - 20:00

Room: متزامن الحضور منصة الكترونية

Tentative List of Topics Covered

Weeks	Topic	References
Week 1	Lecture 1: Introduction, properties and overview of immune responses	
Week 1	Lecture 2: Cell and tissues of immune system	
Week 1	Lecture 3: Leukocytes circulation and migration into tissues	
Week 1	Lecture 4: Innate immunity	
Week 2	Lecture 5: Antibodies and Antigens	
Week 2	Lecture 6: Major Histocompatibility Complex (MHC) molecules & Antigen presentation to T-Lymphocytes	
Week 2	Lecture 7: Immune Receptors and Signal Transduction	
Week 2	Lecture 8: Lymphocyte Development and Antigen Receptor Gene Rearrangement	
Week 3	Lecture 9: Activation of T-lymphocytes	
Week 3	Lectures 10: Effector mechanisms of cell-mediated immunity (CMI) - 1	
Week 3	Lectures 11: Effector mechanisms of cell-mediated immunity (CMI) - 2	
Week 4	Lecture 12: B- Cell activation and antibody production	

Week 4	Lecture 13: Effector mechanisms of humoral immunity	
Week 4	Lecture 14 - Regional Immunity	
Week 4	Lecture 15: Immunological Tolerance and Autoimmunity	
Week 5	Lecture 16: Immunity Against Microbes	
Week 5	Lecture 17: Transplantation Immunology	
Week 5	Lecture 18: Immunity to tumors	
Week 6	19- Hypersensitivity disorders and Allergy 1	
Week 6	20 - Hypersensitivity disorders and Allergy 2	
Week 7	Lecture 21: Immunodeficiency; Congenital and acquired	
Week 7	Lecture 22: Immunology Lab. Techniques	
Week 8	Lecture 23: Immuno-hematology and blood transfusion	

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Student should be able to understand the general perspectives of innate and acquired immunity [1PLO1]	15%	First
Student will be able to comprehend the nature of antibodies and the process whereby antibodies are induced in response to antigens. [1PLO1]	20%	First
Student will be able to demonstrate the immunization process and the functions of small molecular compounds essential for immunity in animals and plants. [1PLO1, 1PLO9]	20%	First
Student should be able to identify the organs and cells responsible for defense in the immune system [1PLO1]	10%	
Student should be able to describe the antibodies and their structures, the complement system and its function [1PLO1]	10%	
Student should be able to understand the mechanisms of immune system dysfunctions, tumor immunology and diagnostic tools [1PLO1]	25%	

Relationship to Program Student Outcomes (Out of 100%)													
PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12	PLO13	PLO14
90								10					

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

Policy	
Attendance	The students are expected to attend all classes Absence in excess of 10% is defined as unsatisfactory progress and will be reported to the head of department.
Exams	-Exams are as follows: First exam 30 marks Second exam 30 marks Final exam 40 marks - Exams are MCQs

Date Printed: 2024-02-04