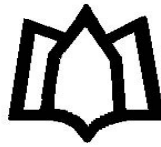


In the Name of God



Hamadan University of Medical Sciences and Health Services  
Educational Deputy of the University  
Center for Studies and Development of Medical Sciences Education

## Lesson Plan: Theory of Clinical Immunology

Dear Colleagues,

As the teaching-learning process is one that cannot achieve its objectives without planning, it is essential to develop a lesson plan at the beginning of the educational process (as a roadmap and guide for instructors and students). Therefore, it is requested that esteemed instructors exercise utmost care in completing the lesson plan.

**Course and Instructor Details (Completion of all items in this section is mandatory)**

<b>Course Title</b>	Clinical Immunology
<b>Instructor Name</b>	Dr. Alireza Zamani
<b>Course Coordinator Name</b>	Dr. Alireza Zamani
<b>Department Head Name</b>	Dr. Mahdi Behzad
<b>Course Type and Credits</b>	<input checked="" type="checkbox"/> Theoretical 1 Credit, <input type="checkbox"/> Practical ... Credits
<b>Student Major and Level</b>	Medicine - Physiopathology
<b>Academic Semester</b>	First Semester <input type="checkbox"/> Second Semester <input checked="" type="checkbox"/>

<b>Sessi on</b>	<b>Topic</b>	<b>Behavioral Objectives</b>	<b>Learning Domain</b>	<b>Teach ing Meth od</b>	<b>Durat ion</b>	<b>Teach ing Aids</b>	<b>Evalua tion Metho d</b>
1	Safety Against Infectious Diseases	1. Identify various defensive barriers against infectious agents. 2. Explain types of defense against extracellular bacteria, intracellular bacteria, and viruses.	1. Cognitive (Knowledge ) 2. Cognitive (Comprehe nsion)	Lectur e	90 minut es	Video project or	Q&A
2	Vaccination	1. Describe the history of vaccination in the world and Iran. 2. Name types of immunity and classify vaccines based on application and types of antigens.	1. Cognitive (Knowledge ) 2. Cognitive (Knowledge & Synthesis)	Lectur e & Discus sion	90 minut es	Video project or	Q&A
3	Hypersensiti vity	1. Explain definitions and various types of hypersensitiv ity, allergens, IgE production, and cells involved in sensitivity, including the production of immediate and delayed mediators. 2. Describe in vivo and in vitro allergy	1. Cognitive (Comprehe nsion) 2. Cognitive (Knowledge )	Lectur e & Discus sion	90 minut es	Video project or	Q&A

		diagnoses and treatments.					
4	Autoimmune Diseases	Explain types of autoimmune diseases and their treatment methods.	Cognitive (Comprehension)	Lecture	90 minutes	Video projector	Q&A
5	Immunodeficiency Diseases	1. Classify primary and secondary immunodeficiencies, including humoral, cellular, phagocytic, and complement deficiencies, with examples. 2. Explain immunopathogenesis mechanisms of various immunodeficiencies and available treatment options.	1. Cognitive (Synthesis) 2. Cognitive (Comprehension)	Lecture	90 minutes	Video projector	Q&A
6	Immunology of Hepatitis and AIDS	1. Explain viral hepatitis and defenses against them. 2. Describe how the immune system is weakened due to HIV infection and the mechanisms the body employs to eliminate the virus.	1. Cognitive (Comprehension) 2. Cognitive (Comprehension)	Lecture & Discussion	90 minutes	Video projector	Q&A
7	Cancer Immunology	1. Explain the immunological surveillance	1. Cognitive (Comprehension)	Lecture	90 minutes	Video projector	Q&A

		hypothesis. 2. Accurately classify various tumor markers with examples. 3. Describe immune responses to cancer cells.	2. Cognitive (Synthesis) 3. Cognitive (Comprehension)				
8	Immunology of Pregnancy and Transplantation	1. Explain pregnancy immunology and mechanisms preventing fetal rejection. 2. Describe the importance of organ transplantation and its requirements. 3. Illustrate types of transplant rejection and how to control or prevent them.	1. Cognitive (Comprehension) 2. Cognitive (Comprehension) 3. Cognitive (Analysis)	Lecture	90 minutes	Video project or	Q&A

## Grading Scheme

Evaluation Type	Evaluation Tool	Points from Total
Quiz	----	----
Project Presentation	----	----
Midterm Exam	√	5 points
Final Exam	√	13 points
Other	In-class questions, regular attendance	2 points
<b>Total</b>		<b>20 points</b>

## Reference

Cellular and molecular Immunology by: Abul K. Abbas, Andrew H. -1  
Lichtman, Shiv Pillai (latest edition)

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