



In the name of God



Isfahan University  
of Medical Sciences

Isfahan Medical School

**second semester lesson plan**

The First semester of the academic year 1403-1404



Semester  
: 2



Academic

Year :1403-1404

<b>Level:</b> Basic Sciences in medical school	<b>Major:</b> Medical
<b>Course Title:</b> Medical Immunology (Practical)	<b>Department:</b> Immunology
<b>Course Code:</b> 00000000000	<b>University Professor or Faculty member:</b> Dr. Andalib و Dr.Eskandari
<b>Class No. :</b> Immuno-Laboratory in Medical school	<b>Credit Hours:</b> 2 hrs. per week
<b>Prerequisite:</b>	<b>Credit Units:</b> Practical (.....Theo and ..... Prac )

<b>Availability of Professor: +989133134128, whatsapp group</b>	<b>Tel: +983137929031</b>								
<b>Office Address: Immunology Department, Isfahan Medical School</b>	<b>E-mail: andalib@med.mui.ac.ir</b>								
<b>Name of Student Representative and Cell phone Number:</b>	<b>Number of Students :</b>								
<b>The General Purpose of the Lesson:</b>									
<b>Learning Outcomes (Objectives):</b>  <b>Assessment Methods: multiple choice questions + Practical work final exam,</b>  <b>(The Assessment Methods that will be Used to Test Students; Learning outcomes &amp; the Skills &amp; Competencies Stated in learning Outcomes)</b>									
<table border="1"> <thead> <tr> <th><b>Assessment</b></th> <th><b>Score From 20</b></th> </tr> </thead> <tbody> <tr> <td><b>Final Exam</b></td> <td><b>50</b></td> </tr> <tr> <td><b>Practical skills:</b></td> <td><b>50</b></td> </tr> <tr> <td><b>Total Marks</b></td> <td><b>100</b></td> </tr> </tbody> </table>		<b>Assessment</b>	<b>Score From 20</b>	<b>Final Exam</b>	<b>50</b>	<b>Practical skills:</b>	<b>50</b>	<b>Total Marks</b>	<b>100</b>
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<b>Total Marks</b>	<b>100</b>								

## **Main References (Text Books): Cellular and Molecular Immunology**

**Authors:** Abul Abbas Andrew Lichtman Shiv Pillai

**Imprint:** Elsevier, 9<sup>th</sup> or 10th Edition, Language: English

### **References for More Reading:**

Text Hand book and power point educational exam will be hand in in the end of each session

Medical Immunology Arad Publications Shiraz School of Medical Sciences (in Persian)

**Student's Responsibilities: Follow the class subjects regularly, answer the written questions and homework**

**Attendance Rules: based on University regulation**

**Department's Attitudes :**

**Mid Exam Date:.....**

**Final Exam Date: .....**



Lecturer and co-director	Laboratory educational content	Date of performance	No.
Dr. Andalib And MRS Turki	Performing direct and indirect ABO grouping tests and becoming familiar with their use - Performing Rh-du tests and becoming aware of their use in blood transfusions (blood group and Rh-du determination is also performed by taking blood from volunteer students). Determining cell type and back type based on direct active agglutination	First session	1
Dr. Eskandari and Mrs Hosayni	Performing the C-reactive Protein (CRP) test, knowing its uses and interpretation – and becoming familiar with and performing the Erythrocyte sedimentation rate (ESR) test. Each student is required to perform the tests independently.	second session	2
Dr. Andalib And MRS Turki	Performing the Wright test and knowing its applications, interpreting the Wright and Combs tests. 2-Mercaptoethanol (2-ME)  Direct Rose Bengal for screening and serial dilutions of slides and tubes for measuring small amounts of antibodies	3	3
Dr. Eskandari and Mrs Hosayni	passive agglutination inhibition test; using latex in the detection of pregnancy hormone and how to use its subunit - and performing the Rheumatoid arthritis latex (RA-latex) test, familiarizing yourself with its applications and interpretation, as well as its false positives and negatives.	4	4
Dr. Andalib And MRS Turki	Perform the Anti-streptolysin O (ASO) test and be aware of its clinical value and false positives and negatives – with emphasis on the use of serial dilutions and lysis of	5	5

	red blood cells		
Dr. Eskandari and Mrs Hosayni	Performing direct and indirect Coombs tests and becoming fully familiar with cellular sensitivity using antibodies and their applications, including diagnosing drug sensitivities and some autoimmune conditions.	<b>6</b>	6
Dr. Andalib And MRS Turki	Performing crossmatch tests (blood group compatibility) and becoming familiar with its interpretation and application	<b>7</b>	7
Dr. Eskandari and Mrs Hosayni	Conducting an Enzyme-linked Immunosorbant Assay (ELISA) test to diagnose AIDS, hepatitis, etc., which includes making all the necessary reagents and familiarizing yourself with the pH meter.	<b>8</b>	8
Dr. Andalib And MRS Turki	Introduction to the principles of flow cytometry, including explanations of fluidic tests, optical electronics, types of detectors, types of laser light, and uses of flow cytometry in disease diagnosis.	<b>9</b>	9
Dr. Eskandari and Mrs Hosayni	Review of the material taught and troubleshooting	<b>10</b>	<b>10</b>