

LABORATORY DIAGNOSIS IN IMMUNOLOGY

1	Course Title:	LABORATORY DIAGNOSIS IN IMMUNOLOGY	
2	Course Code:	TİM6003	
3	Type of Course:	Compulsory	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	8.00	
8	Theoretical (hour/week):	1.00	
9	Practice (hour/week):	4.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. FERAH BUDAK	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	Uludağ Üniversitesi, Tıp Fakültesi, İmmünoloji Anabilim Dalı, 16059, Nilüfer, BURSA E-posta: fbudak@uludag.edu.tr Tel: 2954134	
17	Website:		
18	Objective of the Course:	The aim of this course is to provide the student with an understanding the most commonly used immunological methods and the aim and theory behind those techniques.	
19	Contribution of the Course to Professional Development:	It is aimed to educate researchers who have knowledge about the functioning of the immunology laboratory, laboratory diagnostic tests and diseases.	
20	Learning Outcomes:		
		1	To gain information and skills needed for application of basic immunological laboratory tests
		2	To provide immunological knowledge for evaluating basic immunological laboratory tests
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	Features of antigen-antibody reactions	Laboratory regulations: Laboratory requisites and equipments	
2	Incomplete antibodies, prezone phenomenon, non-specific anamnestic reaction	Admission, preparation and storage of laboratory samples	

3	Direct agglutination tests	Slide agglutination tests
4	Indirect agglutination tests	Direct agglutination tests (Grup agglutination)
5	Tests used for blood group typing	Direct microagglutination tests (Tularemi agglutination)
6	Hemagglutination, hemagglutination inhibition, hemadsorption and hemadsorption inhibition tests	IHA tests (Syphilis IHA)
7	Precipitation tests	VDRL
8	Neutralisation tests	Complement fixation tests (Mycoplasma CF)
9	Immunoblotting	Evaluation and reporting of serological tests
10	Complement fixation	Nephelometric tests (ASO, CRP)
11	Nephelometric tests	EBV panel
12	ELISA and micro ELISA	Micro ELISA tests (H pylori IgG and IgA ELISA)
13	Chemiluminiscence, microparticul immunoassay, enzyme linked fluorescent assay (ELFA)	ELFA tests (CMV IgG, IgA and avidity tests)
14	Fluorescant-antibody tests	Autoantibody tests (ANA test)

22	Textbooks, References and/or Other Materials:	1. Kılıçturgay K., "İmmünoloji", Nobel & Güneş Tıp Kitabevi, 3. Baskı (2003). 2. Camcıoğlu Y., Deniz G. (Çeviri editörleri), "Temel İmmünoloji", İstanbul Tıp Kitabevi (2008). 3. Bilgehan H., "Temel Mikrobiyoloji ve Bağışıklık Bilimi", Barış Yayınları Fakülteler Kitabevi, 11. Baskı (2005).
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Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	1.00	14.00
Midterm Exam	1	0.00	
Practicals/Labs	14	4.00	56.00
Self study and preparation	14	8.00	112.00
Home work-project	5	50.00	
Homeworks	5	10.00	50.00
Projects	0	0.00	0.00
Total	6	100.00	
Field Studies	0	0.00	0.00
Success exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	8.00	8.00
Total	1	100.00	
Total Work Load			240.00
Measurement and Evaluation Techniques Used in the Course	There is a midterm and a final exam in the form of multiple		8.00
ECTS Credit of the Course			8.00

24 ECTS / WORK LOAD TABLE

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	1 very low		2 low		3 Medium		4 High		5 Very High							

