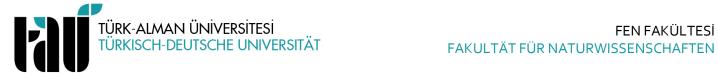


DEPARTMENT OF MOLECULAR BIOTECHNOLOGY MODULE DESCRIPTION

Course Details									
Code				Aca	demic `	Year	Semester		
MBT363	63				3		5		
Title				Т	Α	L	ECTS		
Immunology					0	2	6		
Language	German								
Level	Undergraduate	Х		F	ostgra	duate			
Department / Program	Molecular Biotechnol	ogy							
Forms of Teaching and Learning	Face-to-face								
Course Type	Compulsory			Elective			X		
Objectives	To gain knowledge of the mammalian immune system								
Content	 Immune system Native, humoral and adaptive immune responses Organs, cells and molecules of immune system Antigen Recognition Antigen receptors in lymphocytes Immune signaling Vaccinations Recombinant Antibody Technology 								
Prerequisites	-								
Coordinator	-	-							
Lecturer(s)	Doç. Dr. Orkide Coşkuner-Weber								
Assistant(s)	Res. Asst. Şeyma İş								
Work Placement	-								
Recommended or Required Reading									
Books / Lecture Notes	Immunologie, Janeway, Spektrum Verlag Lecture Script								
Other Sources									
Additional Course Material									
Documents									
Assignments									
Exams									
Course Composition									
Mathematics und Basic Sciences							%		
Engineering						%			



DEPARTMENT OF MOLECULAR BIOTECHNOLOGY MODILI E DESCRIPTION

		MODULE DES	SCRIPTION		
Engineering Design	Design			%	
Social Sciences			%		
Educational Science	ces		%		
Natural Sciences		100	%		
Health Sciences			%		
Expert Knowledge	!	%			
Assessment					
Activit	у	Count		Percentage (%)	
Midterm Exam		1	30		
Quiz		-	-		
Assignments		1	20		
Attendance		-	-		
Recitations		-	-		
Projects		-	-		
Final Exam		1		50	
	Total			100	
ECTS Points and	Work Load				
Activity		Count	Count Duration		
Lectures		13	3	39	
Self-Study		13	5	78	
		13 1	5 10	78 10	
Self-Study	ninar				
Self-Study Assignments Presentation / Ser	ninar	1	10	10	
Self-Study Assignments Presentation / Ser Preparation	minar	1 -	10 -	10 -	
Self-Study Assignments Presentation / Ser Preparation Midterm Exam	minar	1 - 1	10 - 2	10 - 2	
Self-Study Assignments Presentation / Ser Preparation Midterm Exam Recitations	ninar	1 - 1 -	10 - 2 -	10 - 2 -	
Self-Study Assignments Presentation / Ser Preparation Midterm Exam Recitations Laboratory	minar	1 - 1 -	10 - 2 - 2	10 - 2 -	
Self-Study Assignments Presentation / Ser Preparation Midterm Exam Recitations Laboratory Projects	minar	1 - 1 - 13 -	10 - 2 - 2 -	10 - 2 - 26 -	
Self-Study Assignments Presentation / Ser Preparation Midterm Exam Recitations Laboratory Projects	minar	1 - 1 - 13 - 1	10 - 2 - 2 - 2	10 - 2 - 26 - 2	
Self-Study Assignments Presentation / Ser Preparation Midterm Exam Recitations Laboratory Projects		1 - 1 - 13 - 1	10 - 2 - 2 - 2 Total Work Load	10 - 2 - 26 - 2 157	
Self-Study Assignments Presentation / Ser Preparation Midterm Exam Recitations Laboratory Projects Final Exam	nes	1 - 1 - 13 - 1	10 - 2 - 2 - 2 Total Work Load hts (Total Work Load / Hour)	10 - 2 - 26 - 2 157	
Self-Study Assignments Presentation / Ser Preparation Midterm Exam Recitations Laboratory Projects Final Exam Learning Outcom	nes Understanding	1 - 1 - 13 - 1 ECTS Poir	10 - 2 - 2 - 2 Total Work Load ints (Total Work Load / Hour)	10 - 2 - 26 - 2 157	
Self-Study Assignments Presentation / Ser Preparation Midterm Exam Recitations Laboratory Projects Final Exam Learning Outcom	nes Understanding Knowledge of i	1 - 1 - 13 - 1 ECTS Poir	10 - 2 - 2 - 2 Total Work Load ints (Total Work Load / Hour)	10 - 2 - 26 - 2 157	
Self-Study Assignments Presentation / Ser Preparation Midterm Exam Recitations Laboratory Projects Final Exam Learning Outcom 1 2 Weekly Content	nes Understanding Knowledge of i	1 - 1 - 13 - 1 ECTS Poir	10 - 2 - 2 Total Work Load its (Total Work Load / Hour) m accines	10 - 2 - 26 - 2 157	
Self-Study Assignments Presentation / Ser Preparation Midterm Exam Recitations Laboratory Projects Final Exam Learning Outcom 1 2 Weekly Content	nes Understanding Knowledge of i	1 - 13 - 1 ECTS Poir the mammalian immune syster mmune system disorders and v	10 - 2 - 2 Total Work Load ints (Total Work Load / Hour) m accines	10 - 2 - 26 - 2 157	



DEPARTMENT OF MOLECULAR BIOTECHNOLOGY MODULE DESCRIPTION

4	Mechanisms of induction of an immune defense - Antigen recognition								
5	Effector mechanisms of the immune system								
6	Antigen receptors in lymphocytes - genetic and molecular aspects of antibody and T cell receptor variability								
7	Evolution of the adaptive immune system								
8	Immune signaling - regulation of the immune response								
9	Vaccinations								
10	Recombinant Antibody Technology								
11	Methods and techniques for immunology studies								
12	Methods and techniques for immunology studies								
13	Methods and techniques for immunology studies								
Contribution o	Contribution of Learning Outcomes to Program Objectives (1-5)								
	P1	P2	Р3	P4	P5	P6	P7		
1	5	5	5	5	-	5	-		
2	5	5	5	5	-	5	3		
Contribution Lev	evel 1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High								
https://obs.tau.edu.tr/oibs/bologna/progLearnOutcomes.aspx?lang=en&curSunit=5707									
Compiled by: Res. Asst. Dr. Betül Uluca									
Date of Compilation: 14.08.2023									