DEPARTMENT OF MOLECULAR BIOTECHNOLOGY
COURSE SYLLABUS

Course Details					
Code		**Academic Year**			**Semester**
MBT204		2			4
Title		**T**	**A**	**L**	**ECTS**
Microbiology I		2	1	2	6

Language	German					
Level	**Undergraduate**	**X**	**Graduate**		**Postgraduate**	
Department / Program	Molecular Biotechnology					
Forms of Teaching and Learning	Face-to-face					
Course Type	**Compulsory**	**X**	**Elective**			
Objectives	Having an understanding of diversity and physiology of microorganisms.					
Content	Milestones in microbiology Microscopy and cell structure Cell functions and applications Microbial Diversity Algae and fungi Growth, nutrition and cultivation Viruses Infection Biology Basics of Immunobiology Phage therapy Molecular Detection Systems Evolution of microorganisms					
Prerequisites	None					
Coordinator	Prof. Dr. Michael Steinert					
Lecturer(s)	Prof. Dr. Michael Steinert					
Assistant(s)	Res. Asst. Ogün Morkoç, Res. Asst. Şeyma İş					
Work Placement	None					

Recommended or Required Reading	
Books / Lecture Notes	Allgemeine Mikrobiologie, Georg Fuchs, Georg-Thieme Verlag Lecture notes
Other Sources	

Additional Course Material	
Documents	
Assignments	
Exams	

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Course Composition		
Mathematics und Basic Sciences		%
Engineering		%
Engineering Design		%
Social Sciences		%
Educational Sciences		%
Natural Sciences	100	%
Health Sciences		%
Expert Knowledge	100	%

Assessment		
Activity	**Count**	**Percentage (%)**
Midterm Exam	1	35
Quiz	1	15
Assignments	0	0
Attendance	0	0
Recitations	0	0
Projects	0	0
Final Exam	1	50
	Total	**100**

ECTS Points and Work Load			
Activity	**Count**	**Duration**	**Work Load (Hours)**
Lectures	13	2	26
Self-Study	13	5	65
Assignments	4	2	8
Presentation / Seminar Preparation	1	10	10
Midterm Exam	1	2	2
Recitations	13	1	13
Laboratory	13	2	26
Projects	-	-	-
Final Exam	1	2	2
		Total Work Load	**152**
		ECTS Points (Total Work Load / Hour)	**6**

Learning Outcomes	
1	Having an understanding of diversity, physiology and proliferation of microorganisms.
2	Having an understanding of microbial pathogens.

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3	Having an understanding of the interaction between different species.
Weekly Content	
1	Introduction to microbiology & Milestones in microbiology
2	Microscopy and cell structure
3	Cell functions and applications (Molecular Microbiology)
4	Microbial Diversity
5	Algae and fungi
6	Growth and nutrition of microorganisms
7	Cultivation of microorganisms
8	Viruses
9	Infection biology (microbiology origin)
10	Basics of Immunobiology
11	Phage therapy
12	Molecular Detection Systems
13	Evolution

Contribution of Learning Outcomes to Program Objectives (1-5)

	P1	P2	P3	P4	P5	P6	P7
1	5	4	5	5		5	
2	5	4	5	5		5	
3	5	4	5	5		5	

Contribution Level	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. Şeyma İş
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