

**DEPARTMENT OF MOLECULAR BIOTECHNOLOGY
COURSE SYLLABUS**

Course Details					
Code				Academic Year	Semester
MBT367				3	5
Title	T	A	L	ECTS	
Evolution	3	2	0	6	
Language	German				
Level	Undergraduate	X	Graduate	Postgraduate	
Department / Program	Molecular Biotechnology				
Forms of Teaching and Learning	Face-to-Face				
Course Type	Compulsory		Elective	X	
Objectives	Having an understanding of Mendel and molecular genetics in animal populations.				
Content	<ol style="list-style-type: none"> 1. Populations and gene pools 2. Hardy-Weinberg Equilibrium 3. Populations not in Hardy-Weinberg equilibrium 4. Mutation, Natural selection 5. Genetic drift 6. Wallace, Darwin and On the Origin of Species 7. Models for species formation 8. Isolation mechanism 9. Measurement of genetic variation 10. Protein polymorphism 11. Evolution and genetic variation 12. Molecular techniques in evolution research 				
Prerequisites	-				
Coordinator	Undefined				
Lecturer(s)	Undefined				
Assistant(s)					
Work Placement	-				
Recommended or Required Reading					
Books / Lecture Notes	Evolutionsbiologie, Volker Storch, Ulrich Welsch Lecture notes				
Other Sources					
Additional Course Material					
Documents					
Assignments					
Exams					

**DEPARTMENT OF MOLECULAR BIOTECHNOLOGY
COURSE SYLLABUS**

Course Composition			
Mathematics and Basic Sciences		%	
Engineering		%	
Engineering Design		%	
Social Sciences		%	
Educational Sciences		%	
Natural Sciences	100	%	
Health Sciences		%	
Expert Knowledge		%	
Assessment			
Activity	Count	Percentage (%)	
Midterm Exam	1	20	
Quiz	0	0	
Assignments	0	0	
Attendance	0	0	
Recitations	0	0	
Projects	1	40	
Final Exam	1	40	
	Total	100	
ECTS Points and Work Load			
Activity	Count	Duration	Work Load (Hours)
Lectures	13	5	65
Self-Study	13	6	78
Assignments	0	0	0
Presentation / Seminar Preparation	0	0	0
Midterm Exam	1	10	10
Recitations	0	0	0
Laboratory	0	0	0
Projects	1	12	12
Final Exam	1	10	10
		Total Work Load	175
	ECTS Points (Total Work Load / Hour)		6

**DEPARTMENT OF MOLECULAR BIOTECHNOLOGY
COURSE SYLLABUS**

Learning Outcomes

1	Having an understanding of species formation and isolation
2	Having an understanding of the relationship between genetics and evolution
3	Gaining knowledge about Mendel and molecular genetics

Weekly Content

1	Populations and gene pools
2	Hardy-Weinberg Equilibrium
3	Populations not in Hardy-Weinberg equilibrium
4	Mutation, Natural selection
5	Genetic drift
6	Wallace, Darwin and On the Origin of Species
7	Models for species formation
8	Isolation mechanism
9	Measurement of genetic variation
10	Protein polymorphism
11	Evolution and genetic variation
12	Molecular techniques in evolution research

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

	P1	P2	P3	P4	P5	P6	P7
1	5	5	5	5	0	5	0
2	5	5	5	5	0	5	0
3	5	5	5	5	0	5	0

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: Research Assistant Şeyma İş

Date of Compilation: 28.04.2022