

GENETICS

1	Course Title:	GENETICS
2	Course Code:	ZOO2402
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	2
6	Semester:	4
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. CENGİZ ELMACI
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Prof. Dr. Cengiz ELMACI Bursa Uludağ Üniversitesi, Ziraat Fakültesi Zootečni Bölümü Tel: 0(224)2941554 e-posta:elmaci@uludag.edu.tr
17	Website:	
18	Objective of the Course:	Learn principal topics and basic concepts of genetics and heredity
19	Contribution of the Course to Professional Development:	As he learns the basic concepts of genetics and the molecular mechanism of inheritance, he will be able to follow the topics and scientific developments in the field of genetics and apply this knowledge in different fields of agriculture. Thus, he will have the competence to follow the current in his profession.
20	Learning Outcomes:	
	1	Learns basic concepts of Genetics.
	2	Knows genetic material and its function in heredity.
	3	Understands relationship between heredity model of different traits and breeding programmes.
	4	Learns sources and mechanisms of genetic diversity.
	5	Comprehends importance and role of genetics in Agricultural sciences.
	6	Learns basic essential knowledge for genetic engineering and biotechnology.
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21	Course Content:	
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Week	Theoretical	Practice
1	Introduction to genetics, brief history of the genetics	

2	Cells, prokaryotic and eukaryotic organisms, chromosomes	
3	Genetics events	
4	Mendelian genetics and its basic principles, solving problems	
5	Linkage, crossing-over, solving problems	
6	Sex and sex determination systems, sex linked traits, solving problems	
7	Gen interactions, solving problems	
8	Quantitative traits and genetics	
9	Population genetics, Hardy-Weinberg equilibrium, solving problem	
10	Gene concept, What is gene?	
11	DNA: Chemical nature of gene	
12	DNA replication, transcription, Genetic code and translation	
13	Mutation, Gene(Point) mutation	
14	Variations in chromosome structure and numbers	

24	ECTS / WORK LOAD TABLE
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[illegible]

ÖK3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0
ÖK6	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			