LABORATORY ANIMAL PRODUCTION TECHNIQUES

1	Course Title:	LABORATORY ANIMAL PRODUCTION TECHNIQUES	
2	Course Code:	VZT5333	
3	Type of Course:	Optional	
4	Level of Course:	Second Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	-	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. Serdal Dikmen	
15	Course Lecturers:	-	
16	Contact information of the Course Coordinator:	serdal@uludag.edu.tr, 0224-2941355, Faulcuty of Veterinary Medicine, Uludag University Bursa-Turkey	
17	Website:		
18	Objective of the Course:	To educate students to become qualified in the field of breeding of mostly used laboratory animals on tests; laboratory mice, laboratory rat, rabbit, guinea pig, hamster and gerbil.	
19	Contribution of the Course to Professional Development:	Learns different laboratory animal species and their management conditions	
20	Learning Outcomes:		
		1	Learns importance of laboratory animal breeding, usage of laboratory animals for test according to the bio-ethic rules
		2	Learns factors those are affecting laboratory animal breeding and housing conditions
		3	Knows laboratory mice, laboratory rat, rabbit, guinea pig, hamster and gerbil breeding
		4	Learns laboratory rat breeding
		5	Learns rabbit breeding
		6	Learns guinea pig breeding
		7	Learns hamster breeding
		8	Learns gerbil breeding
		9	Learns issues related to animal using for research purposes
		10	
21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	Introduction, importance of laboratory animal breeding	
2	Bio-ethic rules of animal usage testing, law arrangement about laboratory animal tests	
3	Standardization and description of animals in genetical and microbiological sides	

4	Housing design and equipments, thermal condition, lighting, ventilation and interaction of animal-animal and animal-human	
5	Inside conditions of shelter and production hygiene	
6	Laboratory animal selection, applications before testing, preparing usage of laboratory animals	
7	Methods of laboratory animal breeding and mating systems	
8	Laboratory mouse breeding; position of mouse in zoological system, anatomical, physiological and genetical characteristic of mouse, flock management and feeding, behaviours and usage conditions	
9	Rat breeding; position of rat in zoological system, anatomical, physiological and genetical characteristic of rat, flock management and feeding, behaviours and usage conditions	
10	Gerbil breeding; position of gerbil in zoological system, anatomical, physiological and genetical characteristic of gerbil, flock management and feeding, behaviours and usage conditions	
11	Hamster breeding; position of hamster in zoological system, anatomical, physiological and genetical characteristic of hamster, flock	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	10	8.00	80.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm Exams	0	0.00	0.00
Others	3	10.00	30.00
Final Exams	1	5.00	5.00
Total Work Load			143.00
Total work load/ 30 hr			4.77
ECTS Credit of the Course			5.00

12	zoological system, anatomical, physiological and genetical characteristic of guinea pig, flock management and feeding, behaviours and usage conditions
13	Rabbit breeding; position of rabbit in zoological system, anatomical, physiological and genetical characteristic of rabbit, flock management and feeding, behaviours and usage conditions
14	Rabbit breeding (continued) flock management and feeding, behaviours and

NRC, 2011.

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23	Assesment

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	0	0.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	100.00
Total	1	100.00
Contribution of Term (Year) Learning Activities to Success Grade		0.00
Contribution of Final Exam to Success Grade		100.00

Total	100.00
Measurement and Evaluation Techniques Used in the Course	Written exam

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	4	5	1	1	4	4	1	5	1	1	3	3	0	0	0	0
ÖK2	4	5	1	1	4	4	1	5	1	1	3	3	0	0	0	0
ÖK3	4	5	1	1	4	4	1	5	1	1	3	3	0	0	0	0
ÖK4	4	5	1	1	4	4	1	5	1	1	3	3	0	0	0	0
ÖK5	4	5	1	1	4	4	1	5	1	1	3	3	0	0	0	0
ÖK6	4	5	1	1	4	4	1	5	1	1	3	3	0	0	0	0
ÖK7	4	5	1	1	4	4	1	5	1	1	3	3	0	0	0	0
ÖK8	4	5	1	1	4	4	1	5	1	1	3	3	0	0	0	0
ÖK9	4	5	1	1	4	4	1	5	1	1	3	3	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**