LABORATORY ANIMAL HUSBANDRY

1	Course Title:	LABORATORY ANIMAL HUSBANDRY	
2	Course Code:	VET2505	
3	Type of Course:	Optional	
4	Level of Course:	First Cycle	
5	Year of Study:	2	
6	Semester:	3	
7	ECTS Credits Allocated:	3.00	
8	Theoretical (hour/week):	1.00	
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	2.3 The structure, function and behaviour of animals and their physiological and welfare needs.
		9	Learns issues related to animal using for research purposes
		10	2.2 Research methods, the contribution of basic and applied research to veterinary science and implementation of 3Rs (Replacement, Reduction, Refinement).
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	
11	Guinea pig breeding; position of guinea pig in zoological system, anatomical, physiological and genetical characteristic of hamster, flock management and feeding, behaviours and usage conditions	
12	Guinea pig breeding; position of guinea pig in 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	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	1.00	14.00
Practicals/Labs	0	0.00	0.00
Seminars	10	6.00	60.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	5.00	5.00
Others	1	5.00	5.00
Final Exams	1	5.00	5.00
Total Work Load			89.00
Total work load/ 30 hr			2.97
ECTS Credit of the Course			3.00

22	Textbooks, References and/or Other Materials:	1.Laboratuvar Hayvanları Bilimi, Poyraz O. Ankara, 2000. 2. Guide for the Care and Use of Laboratory Animals, NRC, 2011. 3. Tavşan, Vatansever H. Ankara, 1999. 4. Handbook of Laboratory Animal Management and Welfare, Sarah Wolfensohn, Maggie Lloyd. 2013
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	2	100.00

Contribution of Term (Year) Learning Activities to Success Grade	40.00
Contribution of Final Exam to Success Grade	60.00
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
ÖK10	2	2	3	4	3	0	1	2	3	2	2	4	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	**1 very low**		**2 low**		**3 Medium**			**4 High**			**5 Very High**					