



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Semen Extenders and Dilution Methods							
Course Code		VST522		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		To give information about semen extenders, components and function of extenders, dilution methods for sperm							
Course Content		Semen extenders, extender components, dilution methods							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion					
Name of Lecturer(s)		Lec. Uğur UÇAN, Prof. İlker SERİN							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	Ball P.J.H., Peters A.R. (2004) Reproduction in Cattle. Blackwell Publishing, Oxford
2	Bearden H.J., Fuquay J.W., Willard S.T. (2004) Applied Animal Reproduction. Pearson Prentice Hall, New Jersey
3	Feldman E. C., Nelson R. W. (2004) Canine and Feline Endocrinology and Reproduction. Saunders, St. Louis
4	Hafez E.S E., Hafez B. (2000) Reproduction in Farm Animals. Lippincott Williams & Wilkins, Philadelphia
5	Pineda M. H., Dooley M. P. (2003) McDonald's Veterinary Endocrinology and Reproduction, Iowa State Press, New York
6	Mitchell J.R., Doak G. A. (2004) The Artificial Insemination and Embryo Transfer of Dairy and Beef Cattle (including information pertaining to goats, sheep, horses swine, and other animals). Pearson Prentice Hall, New Jersey
7	Evans G., Maxwell WMC. (1987) Salamon's Artificial Insemination of Sheep and Goats. Butterworths, Sydney

Week	Weekly Detailed Course Contents	
1	Theoretical	Semen extenders
2	Theoretical	Components of extenders
3	Theoretical	Sperm dilution methods
4	Theoretical	Preparation of extender
5	Theoretical	Dilution of sperm
6	Theoretical	Extenders for short term storage of sperm
7	Theoretical	Cryoprotectants for freezing of sperm
8	Intermediate Exam	Midterm exam
9	Theoretical	Dilution of bull semen
10	Theoretical	Dilution of ram semen
11	Theoretical	Dilution of goat semen
12	Theoretical	Dilution of dog semen
13	Theoretical	Dilution of stallion semen
14	Theoretical	Effects of extender on semen
15	Theoretical	Commercial extenders
16	Final Exam	Final term exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Reading	14	0	1	14
Midterm Examination	1	11	1	12



Final Examination	1	20	1	21
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	to be able to define semen extenders
2	to be able to analyse aim of the sperm dilution
3	to be able to identify variety of dilution methods
4	to be able to formulate preparation of extender for sperm
5	to be able to describe commercial extenders

Programme Outcomes (Reproduction and Artificial Insemination (Veterinary Medicine) Master)

1	To get knowledge about Reproduction and Artificial Insemination with theoretical lessons and practise
2	To get knowledge about reproductive systems of animals, reproductive organs and functions of these organs
3	To get knowledge about reproductive physiology of male and female animals, reproductive endocrinology, synchronisations and reproductive health
4	To get experience about diagnosis of oestrus, proper insemination time and method
5	To get experience to join reproductive scientific research, to follow scientific advances own field. To transfer all these experiences and knowledge to students and society
6	To gain ability to reach scientific references, to plan an experiment, study this experiment, evaluation of experimental results and compare this result similar experimental result
7	To get experience about cryopreservation and short term storage of sperm, examination of sperm
8	To get knowledge about reproductive biotechnology (artificial insemination, in-vitro fertilisation, freezing of sperm and embryo, embryo transfer, laparoscopic insemination). To Contribute and advance to science
9	To get knowledge about infertility, diagnosis of infertility, treatment of infertility in domestic animals especially commercial farms

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5
P1	4	4	4	4	4
P3	2	2	2	3	
P5	3	3	3	3	3
P6	4	4	4	4	4
P7	5	5	5	4	5
P8	5	5	5	4	4
P9	3	3	3	4	4

