AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Fertility Control Programs in Farm Animals								
Course Code	VST635		Couse Level	Third Cycle (Doctorate Degree)					
ECTS Credit	4	Workload	100 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Increasing fertility in farm animals especially in cows and evaluation of individual and environmental problems to decrease fertility								
Course Content	Fertility and factors effecting fertility in farm animals. Increasing fertility in farm animals especially in cows, evaluation of individual and environmental problems to decrease fertility								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion, Individual Study								
Name of Lecturer(s)	Prof. Ahmet CEYLAN								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Alaçam E.: Evcil Hayvanlarda Reprodüksiyon, Suni Tohumlama, Doğum ve İnfertilite. First Edition,Konya,1994.
2	Youngquist R.S., Threlfall W.R.: Current Therapy in Large Animal Theriogenology. Second Edition, Philedelphia,2007.
3	Hafez E.S E., Hafez B. (2000) Reproduction in Farm Animals. Lippincott Williams & Wilkins, Philadelphia
4	Ball P.J.H., Peters A.R. (2004) Reproduction in Cattle. Blackwell Publishing, Oxford

Week	Weekly Detailed Course Contents	
1	Theoretical	Description and importance of fertility in farm animals
2	Theoretical	Target to be achieved in fertility
3	Theoretical	Evaluations of fertility parameters in farm animals
4	Theoretical	Fertility control programmes in cows
5	Theoretical	Embryonic lost and fertilization problems in cows
6	Theoretical	Factors effecting fertility in cows
7	Theoretical	Control of oestrus and ovulation in cows and artificial insemination
8	Intermediate Exam	Midterm exam
9	Theoretical	Fertility and factors influencing fertility in sheep
10	Theoretical	Fertility and factors influencing fertility in goats
11	Theoretical	Control of oestrus and ovulation in sheep and goats
12	Theoretical	Fertility in mares
13	Theoretical	Factors influencing fertility in mares
14	Theoretical	Control of oestrus and ovulation in mares
15	Theoretical	Control of oestrus and ovulation in mares
16	Theoretical	Final term exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	2	0	10	20
Reading	14	0	1	14
Midterm Examination	1	13	2	15

Final Examination	1	21	2	23
			Total Workload (Hours)	100
			[Total Workload (Hours) / 25*] = **ECTS**	4
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	To get information about fertility control programmes in farm animal especially in cows
2	Control of oestrus and ovulation in farm animals. Proper insemination time in farm animals
3	Fertility in farm animals
4	Factors influencing fertility in farm animals
5	Monitoring and economic impact of reproduction in livestock

Programme Outcomes *(Reproduction and Artificial Insemination (Veterinary Medicine) Doctorate)*	
1	To get knowledge about reproduction and artificial insemination with theoretical lessons and practise, also to get knowledge about reproductive systems of animals, reproductive organs and functions of these organs
2	Hormonal mechanisms of oogenesis and spermatogenesis, movements of oocyte and sperm cells in the genital tracts, factors affecting spermatogenesis and oogenesis, blood-testis barrier, functions of epidydymidis, capacitation and acrosome reaction of sperm cells, fertilization (fusion, activation, penetration)
3	To get knowledge about reproductive anatomy of male and female animals, reproductive endocrinology, , embryonic development of gonads, prenatal development, development-regression and luteolysis of corpus luteum, histological, anatomical and physiological structure of uterus, fertilization, early embryonic development, luteal mechanism, implantation, involution of uterus post partum, sperm migration in cervical mucus, oogenesis, acrosomal enzymes, fusion, activation, penetration, syngamy and polispermy and reproductive health
4	To get ample information about the structure and functions of hormones related to reproduction and diagnosis of oestrus, proper seeding time and gain experience in the selection of the technique in domestic animals
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	Systematic of special examination, morphological and functional examination of genital organs, microbiological examination of sperm cells, ultra structure characteristics of sperm cells, factors affecting sperm quality, spermatological examination, Short term storage and cryopreservation of sperm cells, cryopreservation methods, factors affecting the success of thawing sperm cells, manipulations applied before or after thawing
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
10	To make a research about reproduction and artificial insemination, this can contribute and advance to science
11	To get experience about to write a national or international article about reproduction and artificial insemination, this can contribute and advance to science

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

	L1	L2	L3	L4
P1	5	4		3
P2		4	4	4
P3		4		
P4		5		
P5		4		
P9	4	4	5	4
P11				3