AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Artificial Insemination Methods in Domestic Animals								
Course Code	VST606		Couse Level	Third Cycle (Doctorate Degree)					
ECTS Credit	6	Workload	150 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	Artificial insemination methods in domestic animals (vaginal, intra cervical, recto-vaginal insemination)								
Course Content	Get information about artificial insemination methods in domestic animals								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion, Individual Study								
Name of Lecturer(s)	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	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.
6	Evans G., Maxwell WMC. (1987) Salamon's Artificial Insemination of Sheep and Goats. Butterworths, Sydney.

Week	Weekly Detailed Course Contents	
1	Theoretical	Description of artificial insemination and its importance
	Practice	Preparation for artificial insemination
2	Theoretical	Importance of artificial insemination at genetic improvement
	Practice	to keep under control domestic animals during artificial insemination
3	Theoretical	The most appropriate artificial insemination methods in domestic animals
	Practice	Palpation of cervix and uterine during rectal examination
4	Theoretical	Management of artificial insemination equipments
	Practice	Palpation or ovaries during rectal examination
5	Theoretical	Oestrus cycles of domestic animals
	Practice	Freezing of sperm
6	Theoretical	Determination of oestrus in domestic animals
	Practice	Thawing of sperm
7	Theoretical	Determination of the most appropriate insemination time in domestic animals
	Practice	Preparation of artificial insemination catheter
8	Practice	Artificial insemination methods
	Intermediate Exam	Midterm exam
9	Theoretical	Recto-vaginal insemination
	Practice	Artificial insemination practise
10	Theoretical	Vaginal insemination
	Practice	Artificial inseminations in cows
11	Theoretical	Intra cervical insemination
	Practice	Artificial inseminations in sheep
12	Theoretical	Laparoscopic insemination
	Practice	Artificial inseminations in goats
13	Theoretical	Benefits of artificial insemination
	Practice	Artificial inseminations in mares

14	Theoretical	Advantage and disadvantage of artificial insemination methods
	Practice	Artificial inseminations in dogs and cats
15	Theoretical	Advantage and disadvantage of artificial insemination methods
	Practice	Repetition of artificial insemination practise
16	Final Exam	Final term exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Assignment	1	0	10	10
Reading	14	0	2	28
Midterm Examination	1	24	1	25
Final Examination	1	30	1	31
			Total Workload (Hours)	150
			[Total Workload (Hours) / 25*] = **ECTS**	6

**25 hour workload is accepted as 1 ECTS*

Learning Outcomes

1	To get information about importance of artificial insemination
2	Artificial insemination methods in domestic animals
3	The most appropriate artificial insemination methods in domestic animals
4	Importance of artificial insemination at genetic improvement
5	Management of artificial insemination equipments

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 epididymidis, 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	L5
P1	5	5	5	4	4
P8	4			5	
P10		4			