AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Reproductive Endocrinology and Sexual Cycles								
Course Code	VST604		Couse Level		Third Cycle (Doctorate Degree)				
ECTS Credit	6	Workload	150 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	To give basic knowledge about reproductive endocrinology. To teach administration of hormones for treatment and diagnosis. Description of oestrus cycle in domestic animals.								
Course Content	Get information about reproductive endocrinology and administration of reproductive hormones, using reproductive hormones for treatment and diagnosis. Comparative Oestrus cycle in domestic animals.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion								
Name of Lecturer(s)	Prof. Melih AKSOY								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	60
Assignment	7	20

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	Description of reproductive hormones , classification of reproductive hormones
2	Theoretical	Oestrus cycles of domestic animals
3	Theoretical	Classification of oestrus cycles in domestic animals
4	Theoretical	Hypothalamo –hypophyseal axis, hormones released by hypotalamus and target tissues of this hormones
5	Theoretical	Hormones released by pituitary gland. Target tissues of this hormones
6	Theoretical	Hormones released by gonads and target tissues of this hormones, folliclogenesis , corpus luteum, regression of corpus luteum
7	Theoretical	Progesterone, oestrogen, prostaglandins and target t issues of this hormones
8	Intermediate Exam	Midterm exam
9	Theoretical	Hormones released by uterine and placenta and target tissues of this hormones
10	Theoretical	Reproductive hormones and oestrus cylce
11	Theoretical	Hormonal mechanism of oogenezis
12	Theoretical	Hormonal mechanism of sexual cycle in ruminants , postpartum reproductive hormones and initial oestrus cycle after parturition
13	Theoretical	Hormonal mechanism of sexual cycle in Mares and boars , postpartum reproductive hormones and initial oestrus cycle after parturition
14	Theoretical	Hormonal mechanism of sexual cycle in pets , postpartum reproductive hormones and initial oestrus cycle after parturition
15	Theoretical	Discussion
16	Final Exam	Final term exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	3	0	10	30
Reading	14	0	3	42
Midterm Examination	1	18	2	20
Final Examination	1	28	2	30
			Total Workload (Hours)	150
			[Total Workload (Hours) / 25*] = **ECTS**	6
25 hour workload is accepted as 1 ECTS				

Learning Outcomes	
1	1. To get information about reproductive hormones and classification of reproductive hormones
2	endocrinological reproductif diseases and their treatments
3	comparative endocrine mechanism of oestrus cycle in domestic animals
4	Pregnancy , differentiation of sex, maintaining of pregnancy, termination of pregnancy
5	Hormonal changes in puberty and breeding season

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
P1	5	5	5	5
P2	4	4	4	5
P3	4	4	5	5
P4	5	5	5	
P5	3			3