



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Nutrition and Reproduction in Animals							
Course Code		VHB648		Couese Level		Third Cycle (Doctorate Degree)			
ECTS Credit	6	Workload	147 (<i>Hours</i>)	Theory	1	Practice	0	Laboratory	0
Objectives of the Course		Educate of masters who got sufficient knowledge about the effect of nutrition on fertility for dairy or beef cattle or sheep farm, effects of fertility disorders on production and economy.							
Course Content		Effects of fertility disorders which related with nutrition on animal production in farms. Protection methods from fertility disorders. Relation of nutrition and fertility for different animal species. Preparation of rations for increasing of fertility.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	60
Assignment	4	10

Recommended or Required Reading

1	Yavuz, H.M. (2001) Çiftlik Hayvanlarının Beslenmesinde Temel Prensipler, Hilal Yayınevi, İstanbul.
2	Pond, W.G., Church, D.C., Pond, K.R., Schoknecht, P.A. (2004) Basic Animal Nutrition and Feeding, John Wiley & Sons, New York.
3	Tisch, D. (2005) Animal Feeds, Feeding and Nutrition and Ration Evaluation, Thomson Learning.
4	Kellerns, R.O., Church, D.C. (2002) Livestock Feeds and Feeding, Prentice Hall, New Jersey.
5	McDonald, P., Edwards, R.A., Greenhalgh, J.F.D., Morgan, C.A. (2002) Animal Nutrition, Longman Scientific & Tecnical, England.
6	Ensminger, M.E., Oldfield, J.E., Heinemann, W.W. (1990). Feeds and Nutrition, Second Edition, The Ensminger Publishing Company, California, USA.

Week	Weekly Detailed Course Contents	
2	Theoretical	Nutrient requirement for grower period and nutrient deficiency affects on fertility
3	Theoretical	Effect of nutrition level on maturity and reproductive performance
4	Theoretical	Determination of first fertilization time and nutrition of calves
5	Theoretical	Reason of infertility
7	Intermediate Exam	Midterm exam
8	Theoretical	Effect of nutrition on future fertility of heifers
9	Theoretical	Effects of protein and energy deficiency on infertility
10	Theoretical	Effects of minerals on fertility
11	Theoretical	Effects of vitamins on fertility
12	Theoretical	Effect of nutrition on fertility for bulls
13	Theoretical	Effect over deficiency and over nutrient intake on fertility in bulls
14	Theoretical	Effects of vitamin and minerals on fertility in bulls
15	Theoretical	Effect of flushing on fertility in sheep
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	1	14
Assignment	5	0	5	25
Reading	14	0	6	84
Midterm Examination	1	8	2	10



Final Examination	1	12	2	14
Total Workload (Hours)				147
[Total Workload (Hours) / 25*] = ECTS				6
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To get information about effects and reasons of fertility disorders. To know protection. To know obligations for improvement of production.
2	To have knowledge about the and factors which related with fertility disorders and proper nutrition and management of animals in farms. To be helpful to farmers about the solutions of the fertility disorders related with nutrition.
3	To search literatures about the issue.
4	Effect of nutrition on future fertility of heifers
5	Reason of infertility

Programme Outcomes (Animal Nutrition and Nutritional Diseases (Veterinary Medicine) Doctorate)

1	Knows information about importance of forage and concentrates in basic animal nutrition for protecting animal health in scientific and technological animal production.
2	Have ability to formulate economical and full-satisfactory rations with considering product quality and health. May inform animal producers about practical/appropriate feeding methods.
3	Can adapt to recent scientific and technological developments in animal nutrition easier and produce proper strategies against to problems on this field.
4	Knows the properties of feeds used in proper and economical rations formulated due to needs of animal species.
5	Can give information to animal producers about properties of common feedstuffs used in Turkey
6	Knows organoleptic, physical diagnostic and chemical analysis methods used in determining feed quality.
7	Have information about processing and the effects of processing on animal yield.
8	Can identify the term "feed hygiene" and have information about the usage availability of contaminated feedstuffs.
9	Can apply the informations related to feed additives in a proper way.
10	Understands the results and factors decreasing production.
11	Knows the nutrition related diseases and their solution recommendations which may be applied in feeding or formulating feeds for preventing nutritonal diseases.
12	Knows about the availability level of feedstuffs after consumed and can perform digestibility trials.
13	Knows the definition of stress, stress sources and effects on health and production level of animals.
14	Have sufficient information on classification, activation and fermentation of rumen microorganisms plus carbohydrate, lipid and protein digestibility.
15	Knows the factors effecting feed intake and negative factors in feedstuffs and prevention of them.
16	Comments on feeding behaviours and related yield parameters.
17	Have information on basic terms related to feed legislation, feeds used in animal nutrition and their legal regulations.
18	Have information about biotechnological research conducted on feeds and animal nutrition.
19	Knows the effects of nutrition on food quality, fertility, immunity and parasite enfestations.

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

	L1
P19	5

