



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Protein Evaluating Systems of Feeds							
Course Code		VHB651		Couese Level		Third Cycle (Doctorate Degree)			
ECTS Credit	10	Workload	254 (<i>Hours</i>)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		Educate to masters who have sufficient knowledge about the protein utilisation systems in ruminant and mono gastric animals							
Course Content		Protein utilisation systems for mono gastric animals. Protein utilisation systems for ruminant. Protein utilisation systems for determination of quality of feed protein for ruminant and poultry. Scientific and technologic improvements related with veterinary science.							
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	Givens, D.I., De Boever, J.L. and Deaville, E.R. (1997). The principles, practices and some future applications of near infrared spectroscopy for predicting the nutritive value of foods for animals and humans. <i>Nutr. Res. Rev.</i> , 10: 83-114.
2	McDonald, P., Edwards, R.A., Greenhalgh, J.F.D., Morgan, C.A. (2002) <i>Animal Nutrition</i> , Longman Scientific & Technical, England.
3	Pond, W.G., Church, D.C., Pond, K.R., Schoknecht, P.A. (2004) <i>Basic Animal Nutrition and Feeding</i> , John Wiley & Sons, New York.
4	Tisch, D. (2005) <i>Animal Feeds, Feeding and Nutrition and Ration Evaluation</i> , Thomson Learning.

Week	Weekly Detailed Course Contents	
1	Theoretical	Start for protein utilisation systems
2	Theoretical	Protein fractions
3	Theoretical	Protein utilisation systems for mono gastric animals-chemical methods
4	Theoretical	Protein utilisation systems for mono gastric animals-biological methods
5	Theoretical	Determination of degree of protein utilisation for mono gastric
6	Theoretical	Protein degradability in rumen
7	Intermediate Exam	Midterm exam
8	Theoretical	Protein utilisation systems for ruminant
9	Theoretical	Digestibility of un degradable protein in rumen
10	Theoretical	New protein utilisation systems for ruminant
11	Theoretical	Determination of protein degradability in rumen
12	Theoretical	Quality of microbial protein
13	Theoretical	Determination of protein digestibility in ruminant-chemical methods
14	Theoretical	Determination of protein digestibility in ruminant-biological methods
15	Theoretical	Presentation of assignments
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	15	0	2	30
Assignment	10	0	8	80



Reading	14	0	6	84
Midterm Examination	1	12	2	14
Final Examination	1	16	2	18
Total Workload (Hours)				254
[Total Workload (Hours) / 25*] = ECTS				10
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To have sufficient knowledge about the protein utilisation systems for poultry.
2	To have sufficient knowledge about the protein utilisation systems for ruminant.
3	To have sufficient knowledge about the determination of quality of protein with protein utilisation systems for ruminant and poultry.
4	Students will more easily adapted to new scientific and technologic improvements with a help of correct and recent knowledge education. They have ability to present correct solutions for problems.
5	Determination of protein digestibility in ruminant-chemical methods

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	L2	L3
P12	5	5	5

