AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Crude Nutrient Analysis of Feedstuff								
Course Code	VHB521		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	6	Workload	146 *(Hours)*	Theory	1	Practice	2	Laboratory	0
Objectives of the Course	Adoption of student necessity of feed analyses in animal nutrition. Teaching of methods of feed analysis in animal nutrition. Teaching of energy calculations in different feeds.								
Course Content	Classify of feeds, show to preliminary study of feeds before analyse and sampling, teaching of basic principles of nutrient analyses and realize analyses with different feeds.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, Individual Study, Problem Solving								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	28
Final Examination	1	60
Assignment	10	12

Recommended or Required Reading	
1	Karabulut, A., Canbolat, Ö. (2005). Yem değerlendirme ve Analiz Yöntemleri, Uludağ Üniversitesi Basımevi, Bursa.
2	Kellerns, R.O., Church, D.C. (2002) Livestock Feeds and Feeding, Prentice Hall, New Jersey.
3	Sauvant, D., Perez, J.M., Tran, G. (2004) Tables of Composition and Nutritional Value of Feed Materials, INRA Editions, Wageningen Academic Publishers.
4	Akkılıç, M., Sürmen, S. (1979) Yem Maddeleri ve Hayvan Besleme Laboratuvar Kitabı. A.Ü. Veteriner Fakültesi Yayınları, Ankara.
5	Faithfull, N.T. (2002) Methods in Agricultural Chemical Analysis, Biddles Ltd, Guildford and King's Lynn, England.

Week	Weekly Detailed Course Contents	
1	Theoretical	Classify of feeds
2	Theoretical	Classify of nutrients
3	Theoretical	Feed sampling and preparation for sampling
4	Theoretical	Physical inspection of feeds
5	Theoretical	Microscopic inspection of feeds
6	Theoretical	Chemical inspection of feeds
7	Theoretical	Determination of dry matter, adopting of terminology of dry matter and as fed
8	Intermediate Exam	Midterm exam
9	Theoretical	Crude protein analyse, sharing of general knowledge about amount and quality of protein
10	Theoretical	Crude fiber analyse, explanation of terminology of ADF and NDF, giving to basic knowledge about amount of them in feeds
11	Theoretical	Crude ash analyse
12	Theoretical	Analyse of ether extraction
13	Theoretical	Calculation of nitrogen free substance
14	Theoretical	Sugar and starch analyses
15	Theoretical	Calculation of metabolically energy, specification of energy steps, giving to basic knowledge about consideration of energy variations for different animal species (etc., digestible energy, metabolically energy)

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	1	14

Lecture - Practice	15	0	2	30
Assignment	10	0	3	30
Reading	14	0	3	42
Midterm Examination	1	12	1	13
Final Examination	1	16	1	17
			Total Workload (Hours)	146
			[Total Workload (Hours) / 25*] = **ECTS**	6
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Introducing of feed laboratory and equipments.
2	Teaching of analyses.
3	Realizing of analyses in laboratory.
4	Evaluation of analyzes.
5	According to the results of the analysis, ration preparation.

Programme Outcomes *(Animal Nutrition and Nutritional Diseases (Veterinary Medicine) Master)*	
1	to be able to comprehend information about basic animal nutrition and feeds for protecting animal health, scientific and technological animal production.
2	to be able to formulate economical and full-satisfactory rations with considering product quality and health and inform animal producers about practical/appropriate feeding methods.
3	to be able to apply recent scientific and technological developments in animal nutrition easier and produce proper strategies against to problems on this field.
4	to be able to analyse the properties of feeds used in proper and economical rations formulated due to needs of animal species.
5	to be able to inform animal producers about the common feedstuffs used in animal nutrition
6	to be able to interpret physical, diagnostic and chemical analysis methods used in determinin feed quality.
7	to be able to comprehend processing and the effects of processing on animal yield.
8	to be able to identify the term “feed hygiene” and have information about the usage availability of contaminated feedstuffs.
9	to be able to apply the informations related to feed additives in a proper way.
10	to be able to formulate the results and factors decreasing production.
11	to be able to apprehend the nutrition related diseases and their solution recommendations which may be applied in feeding or formulating feeds for preventing nutiritonal diseases.

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

	L1	L2	L3
P3	5	5	5
P6	5	5	5