



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Feed Additives							
Course Code		VHB524		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	6	Workload	146 (<i>Hours</i>)	Theory	1	Practice	2	Laboratory	0
Objectives of the Course		Adopting of scientific and theoretical knowledge about feed additives and educating masters who are endowed with this knowledge. Training of masters who can advise farmers sufficiently and correctly.							
Course Content		Determination of feed additives, sharing of general information about them and classify of additives. Demonstration of processing of feed additives, adopting of general features of feed additives, explanation of usage reason of additives and summarizing of some literature information about usage of feed additives in animal nutrition.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Discussion, Individual Study					
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	Nir, İ., Şenköylü, N. (2000) Kanatlılar için Sindirimi Destekleyen Yem Katkı Maddeleri, Trakya Üniversitesi, Tekirdağ Ziraat Fakültesi, Tekirdağ.
2	Çakmakçı, S., Çelik, İ. (2000) Gıda Katkı Maddeleri, Atatürk Üniversitesi, Ziraat Fakültesi Ofset Tesisi, Erzurum.
3	Perry, T.W. Cullison, A.E., Lowrey R.S. (2003) Feeds and Feeding, Pearson Education Ltd., New Jersey.
4	Rehm, H.J., Reed, G. (1995) Biotechnology, VCH, Weinheim, New York, Basel, Cambridge, Tokyo.

Week	Weekly Detailed Course Contents	
1	Theoretical	Determination, specification and classification of the feed additives
2	Theoretical	Vitamins, water and fat solubles vitamins, minerals origin from animal and natural minerals, synthetic minerals, chelates
3	Theoretical	Amino acids, by-pass proteins, by-pass fats, energy sources
4	Theoretical	Materials about feed production and storage (antifungal materials, adsorbents)
5	Theoretical	Materials about feed production and storage (anti oxidants, pellet makers, emulators)
6	Theoretical	Materials which effecting digestion (enzymes)
7	Theoretical	Materials which promote the performance of animals-Materials which promote the taste of the feed (aromatics)-Materials which effecting digestion (organic acids)
8	Intermediate Exam	Midterm exam
9	Theoretical	Materials which promote the performance of animals- Materials which effecting digestion (prebiotics and probiotics)
10	Theoretical	Materials which promote the performance of animals- Materials which effecting digestion (buffers, iso acids, materials which effecting ion exchange, ionophores and materials which decreasing of methane production, materials which promoting of salivate production, grids)
11	Theoretical	Materials which promote the performance of animals-The growth promoters (hormones, materials which changing carcass texture)
12	Theoretical	Materials which promote the performance of animals-The growth promoters (antimicrobials, saponines)
13	Theoretical	Materials which affecting animal health (drugs, immune stimulators, materials for fly control in manure)
14	Theoretical	Materials which helping the marketing of animal products
15	Theoretical	Other feed additives/Regulations for usage of feed additive



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	To get recent scientific information in both theoretical and practice way.
2	Can use of theoretical and practical information which given to himself in feed additive class, sufficiently while performing his profession on field.
3	To get sufficient information about feed additives from masters who will work on this field.
4	Learning the effects of feed additives on animal yield
5	The effect of feed additives on economic livestock.

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 nutritonal 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	
P9	5	5	5

