

RATION FORMULATION

1	Course Title:	RATION FORMULATION	
2	Course Code:	VHB6002	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	2.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. ŞULE BAYRAMIÇ	
15	Course Lecturers:	Doç. Dr. Çağdaş KARA	
16	Contact information of the Course Coordinator:	scengiz@uludag.edu.tr, +902242941365, Uludağ Üniversitesi Veteriner Fakültesi Hayvan Besleme ve Beslenme Hastalıkları Anabilim Dalı, Görükle Kampüsü, Nilüfer-Bursa/Türkiye	
17	Website:	http://saglikbilimleri.uludag.edu.tr/anabilimdallari.php	
18	Objective of the Course:	To educate specialists who have knowledge about the principles and techniques of rations for farms and feed manufactures and the allowances of feedstuffs in various rations and who formulate rations for different animal species with different ages, especially for poultry and ruminant rations.	
19	Contribution of the Course to Professional Development:	It contributes to questioning the problems related to nutritional deficiencies from a scientific point of view and producing solutions. At the same time, the ability to analyze the feeding applications of animal production and breeding with an economic understanding is gained.	
20	Learning Outcomes:		
		1	Knowledge the description of ration, balanced rations and feeding standards
		2	The knowledge about the factors related with animal, feed and economy affecting ration formulation
		3	Gain the ability to prepare formulations of rations with using feedstuffs in farms and feed plants for different animal species with different ages
		4	Advances to balance the levels of feedstuffs and feed additives in rations
		5	Learns the formulation of rations by using computer and the importance of computer in ration formulation
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	

1	Preliminary to ration adjustment.	Ration preparation principles
2	Ration adjustment methods	Comparison of adjustment methods
3	Ration adjustment for calf	Formulations of calf starter and calf grower feeds.
4	Ration adjustment for heifers	Formulations of Heifers ration.
5	Ration adjustment for dairy cows	Adjustment of ration according to lactation periods.
6	Ration adjustments for dry cows	Formulation of feeds for dry cows
7	Ration adjustment for beef cattle	Adjustment of ration according to fattening method and fattening period.
8	Ration adjustment for sheep	Formulations of lamb starter and grower feed. Adjustment of ration for dairy sheep. Ration adjustment in flushing period.
9	Ration adjustment for goats	Goat starter and goat grower feed adjustment. Ration adjustment in flushing period.
10	Ration adjustment for broilers	Broiler starter ration
11	Ration adjustment for broilers (continues):	Broiler grower and finisher rations.
12	Ration adjustment for laying hens	Pre-layer rations
13	Ration adjustment for laying hens (continues)	Layer rations.
14	Ration adjustment for turkey and quail	Turkey and quail rations.

22	Textbooks, References and/or Other Materials:	Feeds and Nutrition. Ensminger M.E, Oldfield J.E, Heinemann W.W, Ensminger Publishing Co Nutrient Requirements of Dairy Cattle, NRC, 7th revised edition, USA, 2004
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Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical		14	2.00	28.00
Practicals/Labs		14	2.00	28.00
23 Assessment				
Self study and preparation		14	8.00	112.00
Homeworks		2	5.00	10.00
Projects				
Midterm Exam	0	0	0.00	0.00
Field Studies		0	0.00	0.00
Midterm exams				
Home work project	0	0	0.00	0.00
Others		0	0.00	0.00
Final Exams	1	1	3.00	3.00
Total		100.00		
Total Work Load				181.00
Success Grade/ 30 hr				6.03
ECTS Credit of the Course				6.00

Total	100.00
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Measurement and Evaluation Techniques Used in the Course	Measurement and evaluation are performed according to the Rules & Regulations of Bursa Uludağ University on Undergraduate Education.
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24	ECTS / WORK LOAD TABLE
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25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	5	5	4	4	4	5	3	5	4	3	3	3	0	0	0	0
ÖK2	5	5	4	5	5	5	3	4	4	3	3	5	0	0	0	0

ÖK3	5	5	4	5	5	5	5	5	4	3	3	4	0	0	0	0
ÖK4	5	4	4	5	5	4	5	5	3	3	3	4	0	0	0	0
ÖK5	5	4	4	5	4	5	4	4	4	4	3	3	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			