

## ANIMAL NUTRITION AND NUTRITIONAL DISEASES II

1	Course Title:	ANIMAL NUTRITION AND NUTRITIONAL DISEASES II
2	Course Code:	VET5101
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	5
6	Semester:	9
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	1.00
10	Laboratory (hour/week):	0
11	Prerequisites:	VET2020 Feed Science and Animal Nutrition
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. İ.İSMET TÜRKMEN
15	Course Lecturers:	Prof. Dr. Hakan BİRİCİK, Doç. Dr. Ş. Şule CENGİZ, Doç. Dr. Hıdır GENÇOĞLU, Yard. Doç. Dr. Çağdaş KARA
16	Contact information of the Course Coordinator:	turkmen@uludag.edu.tr, +902242941361, Uludağ Üniversitesi Veteriner Fakültesi Hayvan Besleme ve Beslenme Hastalıkları Anabilim Dalı, Görükle Kampüsü, Nilüfer-Bursa/Türkiye
17	Website:	<a href="http://veteriner.uludag.edu.tr/bolumler/ZooHayBes/haybes.html">http://veteriner.uludag.edu.tr/bolumler/ZooHayBes/haybes.html</a>
18	Objective of the Course:	To teach; techniques of processing and preparation of forage and concentrate feed, how to solve problems in animal feeding and to arrange rations for farm animals. Give knowledge and teach students about the effect of nutrition on milk component quality and fertility, the nutrition of procedure and precautions that they must follow in heat stress
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Techniques of processing and preparation of forage and concentrate feeds
	2	Feeding principles in dairy cattle, beef cattle, and special feeding methods in different physiological periods. The effects of ration preparation on animal health and productivity.
	3	Feeding principles of sheep, goat, pig and special feeding method in different physiological period
	4	The way of ration preparation in order to prevent from nutritional disorders of cattle, goat and sheep
	5	The effect of nutrition on milk component quality and fertility of dairy cattle
	6	The effect of heat stress on dairy cattle and how to feed in stress conditions
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21	Course Content:	
	<b>Course Content:</b>	

Week	Theoretical	Practice		
1	Methods of forage preparation, factors which effect forage quality, usage in ruminant nutrition	Practice of forage preparation techniques		
2	Silage preparation from different kinds of feed materials, usage in animal nutrition	Practice of making silage		
3	Processing methods of concentrate feeds for ruminants and effects of processing methods to digestibility and productivity	Practice of concentrate feed processing techniques		
4	Ration preparation for early lactation cattle with computer programmes and conventional methods	Practice of feeding techniques in lactating cows and techniques of arranging rations		
5	Ration preparation for middle and late lactation cattle with computer programmes and conventional methods	Practice of feeding techniques in lactating cows and techniques of arranging rations (continued)		
6	Ration preparation for dry cattle and heifer with computer programmes and conventional methods	Practice of feeding techniques in lactating cows and techniques of arranging rations (continued)		
7	Special ration preparations and feed supplements in nutritional disorders ( asidosis, limanitis, fatty liver sendrome, ketosis)	Practice of feeding techniques in lactating cows and techniques of arranging rations (continued)		
8	Special ration preparations and feed supplements in nutritional disorders ( hipocalsemi, retension, abamasum depletion)	Practice of feeding techniques in cows during the dry period and techniques of arranging rations		
9	Effects of nutrition to fertility. Ration	Practice of feeding techniques in nutritional disorders		
Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical	usage methods for forage and concentrate feed. Nutritional methods and feed	14	2.00	28.00
Practicals/Labs		14	1.00	14.00
Self study and preparation		14	2.00	28.00
11	Nutrient deficiency related to heat stress	Practice of feeding techniques in heat stress		
Homeworks		0	0.00	0.00
Projects	heat stress	0	0.00	0.00
12	Ration preparation for beef cattle and feeding	Practice of feeding techniques in beef cattle and		
Field Studies		0	0.00	0.00
13	Ration preparation for goats, sheep and	Practice of feeding techniques in sheep and goats and		
Others		0	0.00	0.00
14	Ration preparation for pigs and feeding	Practice of feeding techniques in pigs and techniques of		
Final Exams	Methods	1	30.00	30.00
Total Work Load				120.00
Total work load/ 30 hr				4.00
ECTS Credit of the Course				4.00

<b>22</b>	Textbooks, References and/or Other Materials:	<p>Yemler, Yem hijyeni ve Teknolojisi (2nd ed.). Ergun A ve ark.; Pozitif Matbaacılık, Ankara, 2004.</p> <p>Hayvanların Beslenmesinde Temel Prensipler. Ed. Yavuz HM, Hilal Yayınevi, İstanbul, 2001.</p> <p>Hayvan Besleme ve Beslenme Hastalıkları (2nd ed.). Ed. Ergün A, Tuncer Ş, Pozitif Matbaacılık, Ankara, 2004</p> <p>Çiftlik Hayvanlarında Beslenme Hastalıkları.Umucalılar HD, Gülşen N,SÜ Basımevi, Konya, 2005</p> <p>National Research Council. Nutrient Requirements of dairy Cattle. 7th rev. ed. National Academy Press, Washington, DC, 2001</p> <p>Livestock Feeds and Feeding. 5th ed. Kellerns RO, Church DC. Prentice Hall, New Jersey, 2002</p> <p>Tables of Composition and Nutritional Value of feed Materials. Ed. Sauvant D, Perez JM, Tran G. INRA Editions, Wageningen Academic Publishers, 2004.</p> <p>Animal Feeds, Feeding and Nutrition and Ration Evaluations. Tisch D, Thomson Learning, 2005</p> <p>Nitrogen and Phosphorus Nutrition in Cattle. Hristov AA, Pfeffer E. CABI Publishing, 2005.</p> <p>National Research Council. Nutrient Requirements of Small Ruminants. National Academy Press, Washington DC, 2007.</p>
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<b>23</b>	Assesment
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TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	1	40.00
Quiz	1	10.00
Home work-project	0	0.00
Final Exam	1	50.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		50.00
Contribution of Final Exam to Success Grade		50.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		

<b>24</b>	<b>ECTS / WORK LOAD TABLE</b>
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<b>25</b>	<b>CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS</b>															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	5	2	3	3	3	5	5	1	2	2	5	1	0	0	0	0
ÖK2	5	4	5	4	5	5	5	2	3	2	5	3	0	0	0	0
ÖK3	5	4	5	4	5	5	5	2	3	2	5	3	0	0	0	0
ÖK4	5	5	5	4	5	5	5	2	3	2	5	3	0	0	0	0

ÖK5	5	2	4	4	5	5	3	2	3	2	4	2	0	0	0	0
ÖK6	5	2	4	4	5	5	3	2	3	2	4	2	0	0	0	0
LO: Learning Objectives    PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			