AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Nutrition of Beef Cattle								
Course Code	VHB638		Couse Level		Third Cycle (Doctorate Degree)				
ECTS Credit	8	Workload	202 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Feeding of beef cattle with rational manner. Energy and nutritional requirements rising for economical productivity enhancement in beef cattle. Raising experts knowing breeding performance, breeds, breeding methods and nutritional diseases. Teaching the ability of correction of mistakes done in the field and communication with the producers.								
Course Content	Teaching basic principles in cattle nutrition and giving short information about results of studies. Breeding methods and discussion of its availability of application in Turkey. Teaching feeds used in breeding in Turkey. Giving ration formulations to student.								
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	Perry, TW., Cecava, MJ. (1995) Beef Cattle feding and Nutrition, Acedemic Pres.
2	Kellerns, R.O., Church, D.C. (2002) Livestock Feeds and Feeding, Prentice Hall, New Jersey.
3	Allen, D. (2001) Rationing Beef Cattle, Chalcombe Publications.
4	Barnes, RF., Nelson, CJ., Moore, KJ., Collins, M. (2007) Forages, Blackwell Publishing.

Week	Weekly Detailed Course Contents	
1	Theoretical	Feeding of beef cattle. Definition of breeding.
2	Theoretical	Breeding methods applied according to selection place and ration.
3	Theoretical	Breeding methods according to housing conditions.
4	Theoretical	Water and dry matter requirements.
5	Theoretical	Energy and nutritional requirements of beef cattle.
6	Theoretical	Vitamin and mineral requirements of beef cattle.
7	Theoretical	Purchase of beef cattle. Transport, pre-breeding period, feeding order in beef cattle production.
8	Intermediate Exam	Midterm exam
9	Theoretical	Breeding methods, feeding frequency, ration formulation
10	Theoretical	Effects of feeding frequency on breeding and slaughtering results.
11	Theoretical	Breeding methods.
12	Theoretical	Equipments used in beef cattle farms. Feeds used in beef cattle production.
13	Theoretical	Forages, concentrates, total mixed ration (TMR).
14	Theoretical	Feed additives
15	Theoretical	Ration formulations for beef cattle.
16	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	5	0	10	50
Reading	14	0	7	98
Midterm Examination	1	10	2	12

Final Examination	1	12	2	14
			Total Workload (Hours)	202
			[Total Workload (Hours) / 25*] = **ECTS**	8
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Understanding breeding characteristics of beef cattle.
2	Introduce to environment and feeds of beef cattle.
3	Determination of nutritional requirements of beef cattle.
4	Understanding breeding methods.
5	Having enough information about beef cattle nutrition.

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 nutiritonal 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 preventation 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
P1	4	4	5
P2	5	5	5
P3	2	4	5
P4	4	4	5
P5		5	