



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Diseases Caused By Deficiencies of Trace Elements in Cattle							
Course Code		VH543		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	126 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		To investigate the etiology, pathogenesis, clinical presentation, diagnosis, differential diagnosis, treatment and prophylaxis of diseases caused by iron, copper, cobalt, zinc and selenium deficiency which caused to economic losses and seen frequently in our country							
Course Content		See weekly course topics							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Discussion, Case Study, Individual Study					
Name of Lecturer(s)		Prof. Hasan ERDOĞAN, Prof. Serdar PAŞA							

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Assignment	6	30
Midterm Examination	1	10
Final Examination	1	60

### Recommended or Required Reading

1	C. M. Kahn, S. Line; The Merck Veterinary Manual, 10th Edition. Merck, 2010
2	Bradford P. Smith; Large Animal Internal Medicine, 4th Edition. Mosby, 2009
3	Radostits, Otto M. [and others], eds. Veterinary Medicine: A Textbook of the Diseases of Cattle, Sheep, Pigs, Goats and Horses. 10th ed. WB Saunders, 2007
4	Blowey, R. W., and Weaver, A. David; Color Atlas of Diseases and Disorders of Cattle, 2nd ed. Mosby, 2003
5	Herdt TH, Rumbleha W, Braselton WE. The use of blood analyses to evaluate mineral status in livestock. Vet Clin North Am Food Anim Pract. 2000 Nov;16(3):423-44.
6	Goff JP. Treatment of calcium, phosphorus, and magnesium balance disorders. Vet Clin North Am Food Anim Pract. 1999 Nov;15(3):619-39
7	McCaughan CJ. Treatment of mineral disorders in cattle. Vet Clin North Am Food Anim Pract. 1992 Mar;8(1):107-45.

### Week Weekly Detailed Course Contents & Teaching Methods

1	Theoretical	Trace Elements and Functions
2	Theoretical	Results of trace element deficiencies in cattle
3	Theoretical	Main Causes of trace element deficiencies
4	Theoretical	Clinical Findings of Trace Element deficiencies
5	Theoretical	Laboratory Reviews of trace element deficiencies
6	Theoretical	Diagnosis of trace element deficiencies
7	Theoretical	Iron deficiency, (Mid term exam)
8	Theoretical	Iron deficiency
9	Theoretical	Copper deficiency
10	Theoretical	Cobalt deficiency
11	Theoretical	Zinc deficiency
12	Theoretical	selenium deficiency
13	Theoretical	Mangan deficiency
14	Theoretical	molybdenum deficiency

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	6	0	8	48
Reading	14	0	2	28
Midterm Examination	1	10	1	11



Final Examination	1	10	1	11
			Total Workload (Hours)	126
			[Total Workload (Hours) / 25*] = ECTS	5
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	Diagnosis of trace element deficiencies in cattle.
2	Makes effective and rational treatment.
3	Take prophylactic measures.
4	Knows to send samples to the laboratory related to trace element deficiency.
5	Knows differential diagnosis related to trace element deficiencies.

### Programme Outcomes (Internal Diseases (Veterinary Medicine) Master)

1	Among veterinary medicine master of science sufficiency, increasing and deepening relevant knowledge
2	Developing and deepening theoretical and practical knowledge in the field of use, integrating knowledge from different disciplines for interpretation.
3	For Large and Small Animal Internal Medicine, taking into account the systemic clinical examination, realizing the true diagnosis for interpreting the clinical and laboratory findings, and the need to implement effective and rational treatment for taking prophylactic measures.
4	Learning how to access and evaluate relevant information.
5	Quoting updated novelty relevant to Veterinary Internal Medicine by incrisptive, oral and visually.
6	Planning a relevant research study by use of quantative and qualitative data collection, contiuning by taking care of scientific ethics, and by evaluation of appropriate statistical methods chosen, converting the investigational and project results into report/thesis.
7	Information obtained in accordance with the requirements of the country and the level of expertise of the region for usage of research public and animal health.

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

	L1	L2	L3
P1	4	5	5
P2	4	5	5
P3	5	5	5
P4	4	4	4
P5	3	4	4
P6	4	4	4
P7	5	4	4

