CLINICAL LABORATORY DIAGNOSIS I

1	Course Title:	CLINICAL LABORATORY DIAGNOSIS I
2	Course Code:	VET5125
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	5
6	Semester:	9
7	ECTS Credits Allocated:	2.00
8	Theoretical (hour/week):	1.00
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. NAZMIYE GÜNEŞ
15	Course Lecturers:	Prof. Dr. Ayşin ŞEN Doç.Dr.Özgür ÖZYİĞİT Doç.Dr. Murat YALÇIN Prof.Dr. Bayram ŞENLİK Prof.Dr. Ü. POLAT
16	Contact information of the Course Coordinator:	ngunes@uludag.edu.tr 0 224 2941182 U.Ü.Veteriner Fakültesi Biyokimya ABD
17	Website:	
18	Objective of the Course:	Being able to determine and interpret biochemical parameters that aid in clinical diagnosis in farm animal medicine, and interpretation and application of physiological, pathological and microbiological methods that aid in clinical diagnosis.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Being able to select and apply biochemical parameters that aid in clinical diagnosis in diseases resulting from pathological and metabolic disorders.
	2	Being able to interpret results of biochemical values.
	3	Being able to explain mechanisms of diseases frequently observed in farm animals.
	4	Being able to comprehend the choosing of clinical material, preserving, and obtaining biopsies in diagnosis of farm animal diseases.
	5	Being able to utilize diagnostic methods in immune disorders and parasitic infestations frequently observed in farm animals
	6	Being able to integrate all diagnostic knowledge acquired about farm animal diseases and use in diagnosis of diseases
	7	Being able to communicate with workers and animal owners for applications regarding material and analysis .
	8	Being able to disseminate knowledge gained about clinical biochemical methods in diagnosis of farm animal diseases verbally and in writing.

	9	
	10	

21	Course Content:

Course Content:

Week	Theoretical	Practice
1	Coagulation and diagnosis of clotting disorders	Determination of the clotting time with Lee-White method; Prothrombin time (PT)-Quicks one -stage method
2	Determination of protozoa and bacteria counts in rumen content, special tests related to rumen content	Determination of protozoa and bacteria counts in rumen content
3	Clinical enzymology and interpretation	Measurement of serum AST and ALT
4	Laboratory tests of liver diseases: albumin, globulin, ammonia and urea nitrogen, starvation blood ammonia tolerance test, hypo- and hyperproteinemia, diagnostic approach to hyperglobulinemia	Analysis of serum total protein and gluteraldehyde test
5	Tests of hepatic metabolism: bilirubin metabolism and icterus, diagnostic approach to urine bilirubin, urobilinogen and high serum bile acids	Ehrlich's benzaldehyde test, determination of urobilinogen and bile acids in urine, the determination of bilirubin by using Fauchet's test, the use of urine strips
6	Glomerular function tests: interpretation of azotemia, creatinine clearance, tubular function tests, other serum biochemical findings in renal diseases	The microscopic examination of urine sediment, interpretation of crystals found in acid and alkaline urine
7	Plasma calcium fractions, hypo- and [illegible]	Analysis of calcium and inorganic phosphor in serum
9	Examination of cerebrospinal fluid and [illegible]	A case oriented discussion
10	Immunologic mechanisms in immune-mediated diseases, immunologic complex mediated diseases	Examination of lavage samples prepared from lung materials obtained from slaughterhouses
11	Cytological examination and evaluation of the bronchoalveolar lavage	Erythrocyte agglutination tests, anti-erythrocyte antibody antibody tests, rheumatoid factor test
13	Examination and evaluation of lymphatic aspirates	Examination of lymph node samples obtained from biopsy and slaughterhouse materials
	interpretation of the results in parasitic diseases	parasitology

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	1.00	14.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	4	1.00	4.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	3.00	3.00
Others	1	3.00	3.00
Final Exams	1	8.00	8.00
Total Work Load			60.00
Total work load/ 30 hr			2.00
ECTS Credit of the Course			2.00

22	Textbooks, References and/or Other Materials:

Tietz Textbook of Clinical Chemistry, 3rd Ed., Burtis, C.A., Ashwood, E.R.: Saunders, Philadelphia, 1999
Klinik Laboratuvar Tanı, Turgut K. II. Baskı, İstanbul, 2002
Tıbbi Fizyoloji, Guyton, A.C., Hall J.E., Nobel Yayınevi, İstanbul, 2000
Immunology and Immunupathology of Domestic Animals, Gershwin LJ, Krakowka S, Olsen RG, Mosby, 1995
Manuel and Atlas of Fine Needle Aspiration Cytology, Orell S.R., Sterrett G.F., Walters M.N-I., Whitaker D.,Sec. Ed., Hong Kong, 1994
Veterinarmedizinische Parasitology: Schneider T. Parey Verlag, 2006.

23	Assesment

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		

24 ECTS / WORK LOAD TABLE

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	4	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	0	4	0	0	0	0	0	0	3	0	0	0	0	0	0	0
ÖK8	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High