WESTERN BLOT METHOD

1	Course Title:	WESTERN BLOT METHOD
2	Course Code:	VHE6018
3	Type of Course:	Optional
4	Level of Course:	Third Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Dr. Ögr. Üyesi SABİRE GÜLER
15	Course Lecturers:	-
16	Contact information of the Course Coordinator:	sabirepr@uludag.edu.tr 02242941261 Uludağ Ünv. Veteriner Fak. Histoloji Embriyoloji Anabilim Dalı
17	Website:	http://www.veteriner.uludag.edu.tr
18	Objective of the Course:	To determine the specific protein in cells or tissue.
19	Contribution of the Course to Professional Development:	By determining the desired protein in cells, tissues and organs; It is to contribute to the diagnosis of various disease symptoms and to understand an important diagnostic method for molecular studies.
20	Learning Outcomes:	
	1	Learn the purpose and principles of the method.
	2	Prepare the tissue homogenate or extract.
	3	Learn the amount of total protein in the tissues
	4	Learn preparation an agarose gel
	5	Buffer solutions preparation and learns the principles.
	6	Make specific protein analysis of tissue or cell
	7	Learn Western blot imaging method
	8	Learn use fields
	9	Evaluate the results.
	10	Make the solutions to problems that arise.

21	Course Content:

Course Content:

Week	Theoretical	Practice
1	The basic principle of the method of electrophoresis.	
2	Application areas	
3	Introducing of gels	
4	Usage of SDS gel electrophoresis	
5	Principal of SDS –PAGE electrophoresis	

6	Factors affecting the electrophoretic migration of proteins.	
7	Acrilamid concentration	
8	Buffer solutions used in the SDS-PAGE	
9	Membrans and differences between membrans	
10	Western blot protocol	
11	Labeling and staining of specific proteins	
12	Western blot imaging tecniques	
13	Analysing western blot bands	
14	Troubleshooting	

22	Textbooks, References and/or Other Materials:	1. S Yılmazer, M Öztürk , Ş Arı. Moleküler Biyolojide Kullanılan Yöntemler, Ed. Güler Temizkan, Nazlı Arda. Nobel Tıp Kitapevi, İstanbul, 1999 2. Ed. Hames B.D. Gel Elektrophoresis of Protein. Oxford University Press, USA; 3 edition (December 10, 1998) ISBN-13: 978-0199636402 3. Methods in Molecular Biology Series Ed.: Walker, J.M. ISSN: 1064-3745 June 2009
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	0	0.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	100.00
Total	1	100.00
Contribution of Term (Year) Learning Activities to Success Grade		0.00
Contribution of Final Exam to Success Grade		100.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		Applied evaluation will be made with open-ended questions.

24	**ECTS / WORK LOAD TABLE**

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	2.00	28.00
Homeworks	1	28.00	28.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	2.00	2.00
Total Work Load			86.00
Total work load/ 30 hr			2.87
ECTS Credit of the Course			3.00

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	5	5	5	5	4	4	3	3	5	0	0	0	0	0
ÖK2	5	5	5	5	5	5	4	4	3	3	5	0	0	0	0	0
ÖK3	5	5	5	5	5	5	4	4	3	3	5	0	0	0	0	0
ÖK4	5	5	5	5	5	5	4	4	3	3	5	0	0	0	0	0
ÖK5	5	5	5	5	5	5	4	4	3	3	5	0	0	0	0	0
ÖK6	5	5	5	5	5	5	4	4	3	3	5	0	0	0	0	0
ÖK7	5	5	5	5	5	5	4	4	3	3	5	0	0	0	0	0
ÖK8	5	5	5	5	5	5	4	4	3	3	5	0	0	0	0	0
ÖK9	5	5	5	5	5	5	4	4	3	3	5	0	0	0	0	0
ÖK10	5	5	5	5	5	5	4	4	3	3	5	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**						