VIROLOGY I

1	Course Title:	VIROLOGY I
2	Course Code:	VET2030
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	2
6	Semester:	4
7	ECTS Credits Allocated:	2.00
8	Theoretical (hour/week):	1.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	2
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. KADİR YEŞİLBAĞ
15	Course Lecturers:	Araş.Gör.Dr. Gizem Alpay
16	Contact information of the Course Coordinator:	kyesilbag@uludag.edu.tr ; 2941295, Uludağ Ün. Veteriner Fak. Viroloji AD, Görükle Bursa
17	Website:	
18	Objective of the Course:	Giving knowlegdes on basic princeples of viruses, propagation of viruses in in vivo and in vitro systems, viral pathogenesis and diagnostic methods
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

	1	To learnd basic terms in virology
	2	to learn structure, specifications, and differences from other microorganism
	3	to learn the cultivation systems for viruses
	4	to learn persistent and zoonotic infections
	5	to learn classificaion and taksonomi of the viruses
	6	to learn diagnostic procedures in viral infections
	7	to learn control and prevention from viral infections
	8	
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21	Course Content:

Course Content:

Week	Theoretical	Practice
1	Introduction of the course materials, origin of viruses, Evaluation of virology and History of virology in Turkey	Introduction of the course materials and research laboratory, basic principles of virology laboratory
2	Properties of viruses, differences between other microorganisms	How to use laboratory equipments
3	Structure of viruses, components and functions, Stability of Viruses to Chemical and Physical Agents	Cell cultures, primer cell culture preparation

4	Virus Taxonomy and criterias, order of RNA and DNA virus clasification	Sampling for virological diagnosis
5	BSE, biology and general properties of prions, prion diseases, Virus and virino theories	Inoculum preparation from sample material (leukosite, serum)
6	Replication of viruses and stages, Transcription, translation, post-translation proceses, inhibition of viral replication (antiviral drugs), Viral interference and interferon	Inoculum preparation from sample material (Svab, tissue, gaita)
7	Mutation, genetic and non-genetic interreactions, evalution of viruses, influence of genetic alterations on to viral infections	Inoculation into cell cultures
8	Virus propagation and titration	Inoculation to experimental animal
9	Virus and host cell interreactions	Virus inoculation of embryonating chicken eggs (Chorioallontoic membrane, Allantoic cavity)
10	Epidemiology and trasmisson of viral infections	Virus inoculation of embryonating chicken eggs (Amniotic cavity, Yolk sac)
11	Phatogenesis of viral infections	Virus titration (diluation method)
12	General principles of viral disease detection, sampling for diagnosis, isolation and identification, Viral antigen detection (dELISA, IF, PLA, HA, RİA, LA)	Virus titration (Plaque and immunoplaque assay)
13	Methods for antiviral antibody detection (SNT, iELISA, IIF, AGID,KFT, Hİ,)	Virus neutralization assay
14	Methods for viral nucleic acid detection and	Hemagglutination and hemagglutination inhibition assay

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	3	3.00	9.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	1.00	1.00
Others	0	0.00	0.00
Final Exams	1	1.00	1.00
Total Work Load			54.00
Total work load/ 30 hr			1.77
ECTS Credit of the Course			2.00

2. Viroloji Laboratuvar Uygulamaları, Prof.Dr.Kadir Yeşilbağ, UÜ Vet.Fak.yayınları
Lippincott Williams&Wilkins)

TERM LEARNING ACTIVITIES	NUMBE	WEIGHT
Midterm Exam	1	30.00
Home work-project	0	0.00
Total	3	100.00

Success Grade	
Contribution of Final Exam to Success Grade	60.00
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	5	2	2	5	2	1	2	1	1	2	2	5	0	0	0	0

ÖK2	5	3	4	5	2	1	2	1	2	2	3	3	0	0	0	0
ÖK3	5	5	5	5	3	1	3	1	2	2	3	3	0	0	0	0
ÖK4	5	5	4	5	5	1	5	5	4	2	4	5	0	0	0	0
ÖK5	5	3	3	5	5	1	4	5	4	2	2	5	0	0	0	0
ÖK6	5	3	5	4	5	1	4	3	5	2	3	4	0	0	0	0
ÖK7	5	3	5	5	5	1	4	4	4	2	3	4	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

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