REPLICATION OF VIRUSES

1	Course Title:	REPLICATION OF VIRUSES
2	Course Code:	VVR6003
3	Type of Course:	Optional
4	Level of Course:	Third Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	2.00
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. KADİR YEŞİLBAĞ
15	Course Lecturers:	Prof. Dr. Kadir Yeşilbağ
16	Contact information of the Course Coordinator:	kyesilbag@uludag.edu.tr (+90 224) 294 12 95 U.Ü. Veteriner Fakültesi, Viroloji Anabilim Dalı, Görükle Kampüsü 16059 Bursa
17	Website:	
18	Objective of the Course:	Understanding the basic replication strategies of viruses and the differences between virus families, understanding the systems that can be used in the reproduction of viruses
19	Contribution of the Course to Professional Development:	Understanding the differences between the reproduction strategies of virus families and to have a command of the subject in determining the methods of struggle and the selection of diagnostic methods.
20	Learning Outcomes:	
	1	Understanding the basic replication strategies of viruses
	2	Learning the differences between virus families replication strategies
	3	Learning the systems that can be used to reproduce viruses
	4	Learning the factors that play a role in stopping the reproduction of viruses
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21	Course Content:	

Course Content:

Week	Theoretical	Practice
1	Replication cycles of viruses	Preparation of cell culture for virus cultivation and evaluation of cell lines that can be used

2	Factors affecting adsorption and cell attachment, receptor co-receptor relationships	Application of adsorption and non-adsorption cultivation techniques in cell cultures
3	Penetration and its types	Virus production by using chemical agents that will contribute to reproduction in cell cultures
4	Methods of separating from the covering layers	Observing the effects of different adsorption times on virus replication
5	Intracellular transport of viruses and transfer of viral genome to the nucleus	Observing conditions that prevent virus growth in cell culture
6	Different synthesis stages between Eclipse stage and virus families	Observation of replicating viruses in cell culture
7	Mature virus particle formation, procapsid formation and self-assemby	Infective virus particle detection
8	Extracellular scattering strategies	Extracellular infective virus particle detection
9	Baltimore virus classification according to nucleic acid replication strategies	Detection of intracellular viral particles
10	Post-transcriptional processing	Practice of separation of DNA and RNA viruses with products that can be used in viral protein synthesis
11	Viral protein synthesis	Collection of replicated viruses
12	Post-translational processes	Standardization of antiviral agents before their use in cell culture, toxicity test

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	2.00	28.00
Homeworks	0	0.00	0.00
Projects	7	5.00	35.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	1.00	1.00
Total Work Load			120.00
Total work load/ 30 hr			4.00
ECTS Credit of the Course			4.00

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	The exams to be made will be made in the form of test, classical written or oral.

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Quiz 0

Final Exam 1

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	3	5	5	4	4	3	4	5	3	3	5	0	0	0	0
ÖK2	5	3	5	5	4	4	3	4	5	3	3	5	0	0	0	0

ÖK3	5	3	5	5	4	4	3	4	5	3	3	5	0	0	0	0
ÖK4	5	3	5	5	4	4	3	4	5	4	4	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**