Graduate School of Health Sciences / Microbiology Ph.D.

2024 - 2025 Academic Year

VIROLOGY

Syllabus

Course Description					
Name	**Code**	**Semester**	**T+A Hour**	**Credit**	**ECTS**
VIROLOGY	MKBD1212763	Spring Semester	2+0	2	10

Prerequisites Courses	
Recommended Elective Courses	
Language of Instruction	Turkish
Course Level	Third Cycle (Doctorate Degree)
Course Type	Required
Course Coordinator	Assist.Prof. Özlem GÜVEN
Name of Lecturer(s)	Assist.Prof. Özlem GÜVEN
Assistant(s)	
Aim	Having advanced knowledge about viruses, following and interpreting studies in the field of virology
Course Content	This course contains; General structures, genetic features and virus-host relationships of viruses,Characteristics of DNA viruses, DNA viruses that cause infection in humans, viral pathogenesis,Characteristics of RNA viruses, RNA viruses that infect humans, viral pathogenesis,Immune response mechanisms against viruses,Vaccines and passive immunization methods used against viruses,Antiviral drugs and their mechanisms of action,Genetic characteristics, modes of transmission, human behavior, and environmental factors may pose for virus infections,Laboratory methods used in the identification of viruses.

Course Learning Outcomes	**Teaching Methods**	**Assessment Methods**
Explains the structural and genetic features of viruses and virus-host relationships.	10, 16, 9	A
Explains the characteristics of DNA viruses, DNA viruses that cause infection in humans, and the pathogenesis of viral infection.	10, 16, 9	A
Explains the characteristics of RNA viruses, RNA viruses that cause infection in humans, and the pathogenesis of viral infection.	10, 16, 9	A
Explains immune response mechanisms against viruses.	10, 16, 9	A
Explains vaccines and passive immunization methods used against viruses.	10, 16, 9	A
Explains antiviral drugs and their mechanisms of action.	10, 16, 9	A
Interprets the risks of virus infections based on host types, transmission routes, human behavior and environmental factors.	16, 9	A
Lists the laboratory methods used in the identification of viruses.	10, 16, 9	A

Teaching Methods	10: Discussion Method, 16: Question - Answer Technique, 9: Lecture Method
Assessment Methods	A: Traditional Written Exam

Lecture Schedule

Sequence	**Topics**	**Preliminary Preparation**
1	General structures, genetic features and virus-host relationships of viruses	
2	Characteristics of DNA viruses, DNA viruses that cause infection in humans, viral pathogenesis	
3	Characteristics of RNA viruses, RNA viruses that infect humans, viral pathogenesis	
4	Immune response mechanisms against viruses	
5	Vaccines and passive immunization methods used against viruses	
6	Antiviral drugs and their mechanisms of action	
7	Genetic characteristics, modes of transmission, human behavior, and environmental factors may pose for virus infections	
8	Laboratory methods used in the identification of viruses	

Evaluation Methods	**Weight(%)**
Midterm Exam	50
General Exam	50

Resources

1. Fields Virology, Lippincott Williams & Wilkins, 2013
2. Reviews in Medical Virology