General Principles of Virology

(Общие принципы вирусологии)

Lecturer

Giliazova Alla Vladimirovna, PhD, senior lecturer,

MSU, Biological Faculty, Molecular Biology Department, room 326,

mob, whatsapp +7 965 141 14 75

allagilyazova@yandex.ru

Course Description

This course gives you the unifying view of virology as an integrated discipline.

It includes unique properties of viruses, the principles of the infectious cycle, descriptions of the basic techniques for cultivating and assaying viruses, the architecture of extracellular virus particles, the fundamentals of viral genomes and genetics, and an overview of the surprisingly limited repertoire of viral strategies for genome replication and mRNA synthesis. There will be lectures on attachment and entry, replication strategies by which all viruses reproduce, packaging and so forth.

Schedule

11:30-13:00 lecture

13:15-14:00 seminar

Programme

№	Date	Topic
1	12.10.21	Introduction. Virology: From *Contagium Fluidum* to Virome
2	19.10.21	The infectious cycle. Virus Cultivation and Assay
3	26.10.21	Virus Taxonomy and Virus Genetics
4	02.11.21	Principles of Virus Structure
5	09.11.21	Virus Entry and Uncoating
6	16.11.21	DNA Virus Genome Strategies
7	23.11.21	RNA Virus Genome Strategies
8	30.11.21	RNA Virus Genome Strategies. COVID-19 pandemic
9	07.12.21	Retroviruses. Reverse transcription
10	14.12.21	Virus Assembly
	21.12.21	**Final Test**

Recommended reading

1. Fields Virology (6 ed.), D.M.Knipe, P.M.Howley, 2013
2. Principles of Virology (4 ed.), J.Flint, D.R.Racaniello, G.F.Rall, 2015
3. Principles of Molecular Virology (6 ed.), Alan Cann, 2015
4. Virology: Principles and Applications (2 ed.), by John Carter, 2013

Evaluation

To get course credit you must:

- ✓ attend all the lectures
- ✓ prepare at least two reports for the seminars
- ✓ ask at least 5 questions to the speakers at the seminars
- ✓ score at least 6 out of 10 on the final test