

Course plan

Year: 2026-27	Semester: ☒ First, ☐ Second, ☐ Summer	Number of students:
Major: Dentistry	☒ Basic sciences, ☐ Physiopathology	Department: Bacteriology & Virology
Course Title: Medical Virology	☒ Theoretical, ☐ Practical	Credit: 1 Code N.: 127415
Instructor: Dr. Sharareh Moghim	Office address: School of Medicine, Department of Bacteriology & Virology	Tel: 031-37929013
Email: moghim@med.mui.ac.ir	Response Hours and Days: Wednesday 10-12 a.m.	Student representative name and mobile number:

Main objective: This course aims to provide the foundational understanding of the basic biology of viruses that may cause disease in humans. The differences between viruses and other microorganisms, the types of viruses that are pathogenic to humans, how viruses are transmitted to humans, the mode of pathogenesis and the host body's defense responses against viruses, the differential diagnosis of viral diseases from other microbial agents that infect humans, methods of controlling and combating viruses, and methods of diagnosing viral diseases are discussed in detail.

On completion of this course, the student will be able to:

1. Demonstrate understanding of basic biology, including structure, function, genetics of major viral pathogens.
2. Recognize and apply the key principles of classification of viruses.
3. Explain viral replication strategies; and compare and contrast replication mechanisms used by viruses relevant for human disease
4. Explain antiviral drug action mechanisms
5. Discuss principles of virus pathogenesis
6. Explain host antiviral immune mechanisms
7. Compare and contrast methods used for laboratory diagnosis of viral infections
8. Describe local and global epidemiology of major viruses and their disease associations.
9. Comprehend and appreciate the importance and evolution of normal flora, viral latency and quasi-species evolution.
10. Comprehend the importance and role of different viruses in human cancers

References (Text books):

- 1- Medical Microbiology, Jawetz et al., (Latest version)
- 2- The slides and contents in the class

Student evaluation and the value related to each evaluation:

(The assessment tools that will be used to test student ability to understand the course material and gain the skills and competencies stated in learning outcomes)

ASSESSMENT TOOLS	From
Assignments	-
Presence in online courses	-
Midterm Exam	8
Final Exam (Written exam)	12
TOTAL MARKS	20

Students' responsibilities:

- 1- Study the topics before and after the class
- 2- Follow the class order and rules
- 3- Timely study of the topic uploaded in offline sessions and confirmation of the study at the appointed time.

Discipline and educational rules:

- 1- For each unplanned absence, 0.5 points would be deducted.
- 2- Absence exceeding the permissible limit (4 absence), would fail the course.

Row	date	Time	Topic	Professor	References	Chapter	Pages
1	23/Sep/2026	10-12	General Properties of Viruses, Principles of Virus Structure	Dr.Tavakoli	Textbook of Medical Microbiology (Jawets, 2019)	29	413-414 420-423
2	30/Sep/2026	10-12	Principles of Virus Taxonomy, Replication of Viruses	Dr.Tavakoli	Textbook of Medical Microbiology (Jawets, 2019)	29	414-420 426
3	7/Oct/2026	10-12	Antiviral Chemotherapy	Dr. Moghim	Textbook of Medical Microbiology (Jawets, 2019)	29 30	427-430 449-451
4	14/Oct/2026	10-12	Pathogenesis of Viral Diseases, Diagnosis of Viral Infections	Dr. Moghim	Textbook of Medical Microbiology (Jawets, 2019)	33	437-443 447-449
5	21/Oct/2026	10-12	Herpesviridae (Part I)	Dr.Tavakoli	Textbook of Medical Microbiology (Jawets, 2019)	33	473-486
6	28/Oct/2026	10-12	Herpesviridae (Part II)	Dr.Tavakoli	Textbook of Medical Microbiology (Jawets, 2019)	33	486-494
7	4/Nov/2026	10-12	Parvoviridae, Poxviridae	Dr. Moghim	Textbook of Medical Microbiology (Jawets, 2019)	31 34	457-461 499-508
8	11/Nov/2026	10-12	MMR- Viral Gastroenteritis,	Dr. Moghim	Textbook of Medical Microbiology (Jawets, 2019)	40 37	605-614
Midterm-exam							
9	18/Nov/2026	10-12	Paramyxoviruses Adenoviridae	Dr. Moghim	Textbook of Medical Microbiology (Jawets, 2019)	40 41	595-605 617-621

10	25/Nov/2026	10-12	Influenza Viruses, Coronaviruses	Dr.Tavakoli	Textbook of Medical Microbioloy (Jawets, 2019)	39	581-592
11	2/Dec/2026	10-12	Rabies, Slow Infections	Dr. Moghim	Textbook of Medical Microbioloy (Jawets, 2019)	42	623-632
12	9/Dec/2026	10-12	Picornaviridae	Dr.Tavakoli	Textbook of Medical Microbioloy (Jawets, 2019)	36	531-540
13	16/Dec/2026	10-12	Hepatitis Viruses	Dr.Tavakoli	Textbook of Medical Microbioloy (Jawets, 2019)	35	511-530
14	30/Dec/2026	10-12	HIV& Retroviruses	Dr.Tavakoli	Textbook of Medical Microbioloy (Jawets, 2019)	44	655-670
15	13/ Jan /2027	10-12	Human Cancer Viruses	Dr. Moghim	Textbook of Medical Microbioloy (Jawets, 2019)	43	635-638
16		10-12	Arbo- & Robo- viruses	Dr.Tavakoli	Textbook of Medical Microbioloy (Jawets, 2019)	38	