

Virology

****Iran University of Medical Sciences**

Deputy of Education

Center for Studies and Development of Medical Education

Curriculum Planning Unit

Course Syllabus: Medical Virology**

Course Information

- **Course Providing Department:** Department of Virology
- **Course Title:** Medical Virology
- **Type and Credits:** Theoretical – 1 credit (17 hours)
- **Course Code:** —
- **Class Venue:** —

Instructors (alphabetical order):

Dr. Farah Bokharaei Salim, Dr. Anzhila Ataei,

Dr. Atefeh Kachouei Mohaqeq, Dr. Hadi Karbalaie Niya,

Dr. Seyed Jalal Kiani, Dr. Hossein Keyvani,

Dr. Seyed Hamidreza Monavari, Dr. Leila Mousavizadeh

Prerequisites/ Corequisites: None

Program and Degree Level: International Medical Program – MD (General Medicine)

Course Coordinator Information

- **Name:** Dr. Seyed Hamidreza Monavari
- **Academic Rank:** Professor
- **Specialty:** Medical Virology
- **Workplace:** Iran University of Medical Sciences, School of Medicine, Department of Virology
- **Phone Number:** +98 21 86703004

- **Email:** hrmonavari@yahoo.com
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Course Description

Given the increasing importance of virology and viral diseases in humans, medical students must become familiar with the families and genera of human pathogenic viruses. This course focuses on viral structure, replication, pathogenicity, clinical manifestations, epidemiology, prevention strategies, and treatment of viral diseases.

General Learning Objectives (Competencies)

- **Cognitive Domain:**
Gain a comprehensive understanding of human pathogenic viruses, diagnostic principles, and general therapeutic approaches.
 - **Psychomotor Domain:**
Apply theoretical virology knowledge in clinical practice.
 - **Affective Domain:**
Develop motivation and interest in viral infectious diseases.
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Specific Learning Objectives (Core Competencies)

By the end of the course, the student will be able to:

Cognitive Domain

- Name all major human pathogenic viral families.
 - Describe the physicochemical properties of viruses.
 - Explain the global epidemiology of major viral diseases.
 - Describe epidemiological data of major viral diseases in Iran.
 - Identify diagnostic methods used for viral diseases.
 - Explain prevention strategies and general approaches to treatment of viral infections.
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Psychomotor Domain

- Initiate primary prevention of viral infections by communicating virology knowledge to patients and their caregivers.
 - Apply acquired knowledge in the prevention and management of viral diseases encountered in clinical settings.
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Affective Domain

- Participate actively in class discussions.
 - Present findings from extracurricular readings in class.
 - Demonstrate commitment to applying virology knowledge in clinical practice.
 - Respect peers' viewpoints.
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Educational Approach

☐ Virtual ☐ In-person ☒ Blended

Teaching and Learning Methods

Virtual Methods

- Flipped classroom
- Digital game-based learning
- Interactive electronic content-based learning
- Problem-Based Learning (PBL)
- Other: —

In-Person Methods

- Interactive lecture (Q&A, quizzes, group discussion, etc.)
- Small-group discussion
- Team-Based Learning (TBL)

- Problem-Based Learning (PBL)
- Scenario-Based Learning
- Peer-assisted teaching
- Game-based learning
- Other: —

Blended Learning Approach

A combination of selected virtual and in-person methods listed above.

Instructional Materials and Equipment

- Whiteboard
- Slide projector
- Skill lab educational tools
- Other: —

Course Calendar

Instructor	Topic	Date (Persian Calendar)	Date (Gregorian)
Dr. Kiani	General properties of viruses (Definition, Structure, Classification, Replication, Transmission)	30/6/1404	21 Sep 2025
Dr. Monavari	Laboratory diagnosis of viral infections & Antiviral drugs	6/7/1404	28 Sep 2025
Dr. Karbalaie Niya	Poxviridae, Adenoviridae, Parvoviridae	13/7/1404	5 Oct 2025
Dr. Mousavizadeh	Paramyxoviridae, Orthomyxoviridae	20/7/1404	12 Oct 2025
Dr. Ataei	Picornaviridae, Rotavirus, Papillomaviridae	27/7/1404	19 Oct 2025

Instructor	Topic	Date (Persian Calendar)	Date (Gregorian)
Dr. Bokharaei	Retroviridae	4/8/1404	26 Oct 2025
Dr. Keyvani	Viral Hepatitis	11/8/1404	2 Nov 2025
Dr. Mousavizadeh	CCHF, Rabies virus, Rubella	18/8/1404	9 Nov 2025
Dr. Kachuei	Herpesviridae, Coronaviridae	25/8/1404	16 Nov 2025

 **Class Time: Sundays, 10:00–12:00**

Student Responsibilities and Expectations

Required Assignments

- Regular attendance in classes.
- Timely submission of assignments.
- Review lecture content in advance using assigned resources.
- Attend the final exam and achieve a passing score.

Expected Behaviors

- Active participation in classroom activities.
- Engagement in Q&A and discussions.

Attendance Policy

- One excused absence is permitted.
- More than one absence or unexcused absence results in disqualification from the final exam.

Assessment Methods

- **Formative assessment:** quizzes, midterm evaluation

- **Summative assessment:** final exam

Grading distribution among instructors is proportional to teaching hours delivered by each faculty member.

Grading Components

Assessment Type	Weight
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Midterm Exam	—%
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Final Exam	100%
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Assignments	—%
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Active Participation	—%
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Others	—
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Exam Format

☐ Descriptive ☐ Short Answer ☒ Multiple Choice ☐ Matching ☐ True/False
Other: —

Resources

Primary Textbooks

- *Jawetz, Melnick & Adelberg's Medical Microbiology*, 28th Edition, 2019
- *Murray's Medical Microbiology*, 9th Edition, 2020

Articles: —

Electronic Content: —

Additional References

- World Health Organization (WHO) website
- Centers for Disease Control and Prevention (CDC) website