

**Textbook - Warren Levinson et al. Review of Medical Microbiology and Immunology.
17th edition**

Faculty of Stomatology

Thematic Plan of Lectures and Practical Classes

N	Lectures	Hours
1.	Basic virology - structure, replication of viruses, genetics & gene therapy, pathogenesis, host defences, laboratory diagnosis, antiviral drugs, viral vaccines.	1 60
2.	HERPESVIRUSES - Overview Herpes Simplex Viruses, Varicella-Zoster Virus, Cytomegalovirus.	1 60
3.	Epstein–Barr Virus (EBV), Human Herpesvirus 8 (Kaposi’s Sarcoma–Associated Herpesvirus). POXVIRUSES - Smallpox Virus, Molluscum Contagiosum Virus; HUMAN PAPILLOMAVIRUS.	1 60
4.	Respiratory Viruses - Influenza Virus, Parainfluenza Virus, Respiratory Syncytial Virus, Human Metapneumovirus, Coronavirus, Rhinovirus, Adenovirus.	1 60
5.	Important Childhood Viruses & Viruses with an Animal Reservoir. IMPORTANT CHILDHOOD VIRUSES - Measles Virus, Mumps Virus, Rubella Virus, Parvovirus B19; VIRUSES WITH AN ANIMAL RESERVOIR - Rabies Virus, Ebola Virus	1 60
6.	Viruses That Infect the Enteric Tract. Norovirus Rotavirus Poliovirus Coxsackie Virus Echovirus Other Enteroviruses.	1 60
7.	Hepatitis viruses. Hepatitis A Virus, Hepatitis B Virus, Non-A, Non-B Hepatitis Viruses, Hepatitis C Virus, Hepatitis D Virus (Delta Virus), Hepatitis E Virus, Hepatitis G Virus	1 60
8.	Important Arboviruses that Cause Disease in the United States - Eastern Equine Encephalitis Virus, Western Equine Encephalitis Virus, St. Louis Encephalitis Virus. California Encephalitis Virus, Colorado Tick Fever Virus, West Nile Virus. Important Arboviruses that Primarily Cause Disease Outside the United States - Yellow Fever Virus, Dengue Virus, Chikungunya Virus, Zika Virus Minor Viral Pathogens - Crimean-Congo Hemorrhagic Virus, Hantaviruses, Human Herpesvirus 6, Japanese Encephalitis Virus, Lassa Fever Virus, Lymphocytic Choriomeningitis Virus, Marburg Virus.	1 60
9.	Slow Diseases Caused by Conventional Viruses - Progressive Multifocal Leukoencephalopathy, Subacute Sclerosing Panencephalitis, Acquired Immunodeficiency Syndrome, Slow Diseases Caused by Prions - Kuru, Creutzfeldt-Jakob Disease, Variant Creutzfeldt-Jakob Disease (vCJD)	1 60

	Slow Diseases of Animals - Scrapie, Visna, Bovine Spongiform Encephalopathy, Chronic Wasting Disease Tumor viruses. Malignant Transformation of Cells. Role of Tumor Viruses in Malignant Transformation. Proviruses & Oncogenes. Outcome of Tumor Virus Infection. Transmission of Tumor Viruses. Vaccines Against Cancer. Do Animal Tumor Viruses Cause Cancer in Humans?	
10.	Human immunodeficiency virus - Disease, Important Properties, Summary of, Replicative Cycle, Transmission & Epidemiology, Pathogenesis & Immunity, Clinical Findings, Laboratory Diagnosis, Treatment, Prevention.	1 ບ່ອ
11.	Basic mycology.	1 ບ່ອ
12.	Cutaneous and subcutaneous mycoses.	1 ບ່ອ
13.	Opportunistic mycoses.	1 ບ່ອ
14.	Systemic mycoses.	1 ບ່ອ

N	Practical Classes (15 classes, each of 2h.)	Study Materials	Hours
1.	Overview of medically important viruses.	Chapter 31	2
2.	Basic virology - structure, replication of viruses, genetics & gene therapy, pathogenesis, host defences, laboratory diagnosis, antiviral drugs, viral vaccines. <u>Laboratory session – viral cytopathic effects on the phage model. Phage susceptibility.</u>	Chapters 28-36 (“pearls”); Handout for laboratory session	2
3.	HERPESVIRUSES - Overview Herpes Simplex Viruses, Varicella-Zoster Virus, Cytomegalovirus – diseases, important properties, replicative cycle, transmission and epidemiology, pathogenesis and immunity, clinical findings, laboratory diagnosis, treatment and prevention. <u>Clinical case discussion</u>	Chapter 37	2
4.	Epstein–Barr Virus (EBV), Human Herpesvirus 8 (Kaposi’s Sarcoma–Associated Herpesvirus); POXVIRUSES - Smallpox Virus, Molluscum Contagiosum Virus; HUMAN PAPILLOMAVIRUS – diseases, important properties, replicative cycle, transmission and epidemiology, pathogenesis and immunity, clinical findings, laboratory diagnosis, treatment and prevention.	Chapter 37	2

	<u>Clinical case discussion</u>		
5.	Respiratory Viruses - Influenza Virus, Parainfluenza Virus, Respiratory Syncytial Virus, Human Metapneumovirus, Coronavirus, Rhinovirus, Adenovirus– diseases, important properties, replicative cycle, transmission and epidemiology, pathogenesis and immunity, clinical findings, laboratory diagnosis, treatment and prevention. <u>Clinical case discussion</u>	Chapter 38	2
6.	Important Childhood Viruses & Viruses with an Animal Reservoir. IMPORTANT CHILDHOOD VIRUSES - Measles Virus, Mumps Virus, Rubella Virus, Parvovirus B19; VIRUSES WITH AN ANIMAL RESERVOIR - Rabies Virus, Ebola Virus – diseases, important properties, replicative cycle, transmission and epidemiology, pathogenesis and immunity, clinical findings, laboratory diagnosis, treatment and prevention. <u>Clinical case discussion</u>	Chapter 39	2
7.	Viruses That Infect the Enteric Tract. Norovirus Rotavirus Poliovirus Coxsackie Virus Echovirus Other Enteroviruses – diseases, important properties, replicative cycle, transmission and epidemiology, pathogenesis and immunity, clinical findings, laboratory diagnosis, treatment and prevention. <u>Clinical case discussion</u>	Chapter 40	2
8.	I Colloquium		2
9.	Hepatitis viruses. Hepatitis A Virus, Hepatitis B Virus, Non-A, Non-B Hepatitis Viruses, Hepatitis C Virus, Hepatitis D Virus (Delta Virus), Hepatitis E Virus, Hepatitis G Virus – diseases, important properties, replicative cycle, transmission and epidemiology, pathogenesis and immunity, clinical findings, laboratory diagnosis, treatment and prevention. <u>Clinical case discussion</u>	Chapter 41	2
10.	Important Arboviruses that Cause Disease in the United States - Eastern Equine Encephalitis Virus, Western Equine Encephalitis Virus, St. Louis Encephalitis Virus. California Encephalitis Virus, Colorado Tick Fever Virus, West Nile Virus. Important Arboviruses that Primarily Cause Disease Outside the United States - Yellow Fever Virus, Dengue Virus, Chikungunya Virus, Zika Virus Minor Viral Pathogens - Crimean-Congo Hemorrhagic Virus, Hantaviruses, Human Herpesvirus 6, Japanese Encephalitis	Chapter 42, Chapter 46	2

	Virus, Lassa Fever Virus, Lymphocytic Choriomeningitis Virus, Marburg Virus. <u>Clinical case discussion</u>		
11.	Slow Diseases Caused by Conventional Viruses – Progressive Multifocal Leukoencephalopathy, Subacute Sclerosing Panencephalitis, Acquired Immunodeficiency Syndrome; Slow Diseases Caused by Prions - Kuru, Creutzfeldt-Jakob Disease, Variant Creutzfeldt-Jakob Disease (vCJD); Slow Diseases of Animals - Scrapie, Visna, Bovine Spongiform Encephalopathy, Chronic Wasting Disease - Disease, Important Properties, Summary of, Replicative Cycle, Transmission & Epidemiology, Pathogenesis & Immunity, Clinical Findings, Laboratory Diagnosis, Treatment, Prevention. Tumor viruses. Malignant Transformation of Cells. Role of Tumor Viruses in Malignant Transformation. Proviruses & Oncogenes. Outcome of Tumor Virus Infection. Transmission of Tumor Viruses. Vaccines Against Cancer. Do Animal Tumor Viruses Cause Cancer in Humans? <u>Clinical case discussion</u>	Chapter 42; Chapter 43 – according to study topics	2
12.	Human immunodeficiency virus - Disease, Important Properties, Summary of, Replicative Cycle, Transmission & Epidemiology, Pathogenesis & Immunity, Clinical Findings, Laboratory Diagnosis, Treatment, Prevention. <u>Clinical case discussion</u>	Chapter 45	2
13.	Basic mycology - Morphology, pathogenesis, toxins and allergic reactions, antifungal diagnostics and their mode of action. Cutaneous and subcutaneous mycoses. <u>Clinical case discussion</u> <u>Laboratory session – morphology, cultivation, and staining of fungi</u>	Chapter 47, 48; handout for laboratory session	2
14.	Systemic mycoses. Opportunistic mycoses. <u>Clinical case discussion</u>	Chapter 49, Chapter 50	2
15.	II Colloquium		2