



The Ministry of education and science of Russian Federation Ulyanovsk State University Institute of Medicine, Ecology and physical culture Department of General and Clinical Pharmacology with Microbiology course	Form	
Syllabus of lectures		

Approved by 31.08.2020  
Head of Department of  
General and Clinical  
Pharmacology with  
Microbiology course  
M. P. Markevich



**Syllabus of practical classes in Microbiology, virology  
for 2<sup>nd</sup> students within English-speaking medium for the 1<sup>st</sup> term 2020-2021**

№	Theme	Date
1.	Subject and aims of medical microbiology. The morphology and taxonomy of microorganisms. Microscopic research method. Sterilization and disinfection.	02.09.-12.09.
2.	Physiology of microorganisms. Metabolism. Nutrition and respiration of bacteria. Cultivation methods of aerobic and anaerobic bacteria.	14.09-26.09.
3.	Viruses. The discovery of viruses, its classification. Bacteriophages. The practical importance of phages in biology and medicine. The genetics of microorganisms. Biotechnology in microbiology. Molecular-biological methods of diagnosis	28.09.-10.10.
4.	Infection: the role of microorganisms in infectious process. Biological diagnostic method. The role of host in the infectious process. Microbiological basics of antimicrobial therapy. Methods for determination sensitivity of bacteria to antibiotics.	12.10.-24.10.
5.	Ecology of microorganisms. The human microflora and its function. Dysbiosis, methods of correction. Biofilms. Sanitary demonstration water microorganisms, soil, air, and methods of research.	26.10.-07.11.
6.	Immunity. Serological methods – agglutination test, precipitation test, complement fixation test.	09.11.-21.11.
7.	Clinical Microbiology. Etiology and pathogenesis of nosocomial infections. The causative agents, properties and microbiological diagnostics of nosocomial infections. Pathogenic and opportunistic gram-positive and gram-negative cocci.	23.11.-05.12.
8.	Pathogens of escherichiosis and dysentery. The causative agents of typhoid, salmonella poisoning and cholera.	07.12.-26.12.
9.	Pathogens of diphtheria, whooping cough. Pathogens of legionellosis. Pathogenic mycobacteria..	28.12.-16.01.

Compiled by  
PhD in Biological sciences, Associate Professor



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