


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 lectures in Microbiology, virology
for 2nd year students within English-speaking medium for the 1st term 2020-2021**

№	Theme	Date
1.	Subject and aims of medical microbiology. The morphology and taxonomy microorganisms. Microscopic research method. Sterilization and disinfection.	02.09.2020
2.	Physiology of microorganisms. Metabolism. Nutrition and respiration of bacteria. Cultivation methods of aerobic and anaerobic bacteria.	03.09.2020
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	10.09.2020
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.	11.09.2020
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.	24.09.2020
6.	Immunity. Serological methods – agglutination test, precipitation test, complement fixation test.	08.10.2020
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.	22.10.2020
8.	Pathogens of escherichiosis and dysentery. The causative agents of typhoid, salmonella poisoning and cholera.	05.11.2020
9.	Pathogens of diphtheria, whooping cough. Pathogens of legionellosis. Pathogenic mycobacteria..	19.11.2020

Compiled by

PhD in Biological sciences, Associate Professor



M. N. Artamonova