Approved by
Head of the Microbiology Department,
Professor Stepanenko I.S.

by protocol №1, 26. 08. 2024

Syllabus of practical classes in Microbiology
for the 2nd year students within English-speaking medium
for the 3rd term for Pharmacy Faculty

The end of the theoretical course– 26.12.24

№	Themes	Time
1. 02.09. - 07.09.2024	Introduction in medical microbiology. General characteristics of the Family Enterobacteriaceae.	4 hours
2. 09.09. - 14.09.2024	Escherichia coli. Morphology, cultural characteristics and biochemical reactions, antigens. Epidemiology, pathogenesis and clinical syndromes. Laboratory diagnosis. Causative agents of bacterial dysentery – Shigella: general characteristics, laboratory diagnosis.	4 hours
3. 16.09. - 21.09.2024	Salmonella – causative agent of typhoid fever and paratyphoid fever. Morphology, cultural characteristics and biochemical reactions, antigens. Epidemiology, pathogenesis and clinical syndromes. Laboratory diagnosis. Cholera. Characteristics of V. cholerae, classification. Epidemiology and pathogenesis of cholera. Laboratory diagnosis.	4 hours
4. 23.09. - 28.09.2024	**Concluding session.**	4 hours
5. 30.09. - 05.10.2024	Clinical microbiology. Staphylococci: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis. Streptococci and Pneumococci: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis. Neisseria. N. meningitidis: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis. N.gonorrhoeae: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis.	4 hours
6. 07.10. - 12.10.2024	Causative agent of diphtheria: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis. Whooping cough. B. pertusis and B. parapertusis: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis.	4 hours
7. 14.10. - 19.10.2024	Mycobacteria. M. tuberculosis: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis. M. leprae: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis.	4 hours
8. 21.10. - 26.10.2024	**Concluding session.**	4 hours
9. 28.10. - 02.11.2024	Anthrax: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis. Plaque. Y.pestis: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis. Tularemia. F.tularensis: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis.	4 hours

	Brucellosis. Brucella spp.: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis. Introduction in medical microbiology.	
10. 05.11. - 09.11.2024	Anaerobic infections: gas gangrene, tetanus, botulism. Microbiological characteristics, laboratory diagnostic, treatment and prevention.	4 hours
11. 11.11. - 16.11.2024	Pathogenic spirochetes. Leptospira: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis. Treponema: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis. Borrelia: biological properties, factors of pathogenicity, clinical forms of diseases, laboratory diagnosis, treatment and prophylaxis. Pathogenic Mycoplasmas, Chlamydiae, Rickettsiae, Fungi: their role in human pathology, principles of laboratory diagnosis.	4 hours
12. 18.11. - 23.11.2024	**Concluding session.**	4 hours
13. 25.11. - 30.11.2024	Medical Virology. Orthomyxoviruses. Paramyxoviruses. Adenoviruses. Herpesviruses. Taxonomy, biological properties, antigens, epidemiology, pathogenesis, laboratory diagnosis.	4 hours
14. 02.12. - 07.12.2024	Enteroviruses: Poliovirus, Coxsackieviruses, Echoviruses. Togaviruses. Rabdoviruses. Taxonomy, biological properties, antigens, epidemiology, pathogenesis, laboratory diagnosis.	4 hours
15. 09.12. - 14.12.2024	Viral hepatitis: HAV, HEV, HBV, HCV, HDV. Taxonomy, biological properties, antigens, epidemiology, pathogenesis, laboratory diagnosis. Human immunodeficiency virus: taxonomy, biological properties, replication cycle, antigens, laboratory diagnosis. Oncogenic viruses.	4 hours
16. 16.12. - 21.12.2024	**Concluding session.**	4 hours