LIST OF THE TOPICS FOR INDIVIDUAL SELF-STUDY

Module I "Morphology and physiology of microorganisms"

To make the review of the literature with the registration of the abstract according to the general requirements (optional):

2. History of the antibiotics discovery.
3. Methods of antibiotics production.
5. The phenomenon of antagonism in bacteria.
6. Microbiological bases of genetic engineering and biotechnology.
7. Microorganisms are producers of biologically active substances that can be used in medical practice.
8. The using of microorganisms and their enzymes in biotechnology for the production of aminoacids, vitamins, hormones, antibiotics.
10. Modification variability, their mechanisms and forms of manifestation in bacteria.
11. Morphology and structure of medically important protozoa. The life cycles of its development.
12. The using of bacteriophages in microbiology and medicine.
15. Practical using of genetic engineering in medical microbiology, virology, immunology and biotechnology.


To study and sketch the diagrams of the cellular interactions in the immune response and make the review of the literature with the writing of the abstract on the selected topics:

2. Local oral immunity. Methods of study.
3. The value of normal microflora of different human biolokus as one of the factors of the first line of protection of the organism.
4. Types of eubiotics. Practical use in medicine and dentistry.
**Rules of writing the abstract**

The volume of the abstract should be up to 20 pages of typewritten text and must include:

1. Title page - 1st page
2. Plan - 2nd page
3. Introduction - 3rd page
4. Main part and conclusion(s) - 4-19 pages
5. References (not less than 5 sources) and links to sources from the Internet.

If necessary, the material may contain drawings, tables. The defense of the abstract is carried out in one of the classes. Within 5 minutes, the student briefly describes the content of the abstract.

**Module III "Special and sanitary bacteriology"**

To study the topics, which are not included into the practical lessons and fill in the control cards (5 cards optionally):

1. Genus Peptostreptococcus, as purulent-inflammatory processes pathogens of different locations.
2. Legionella spp., as causative agents of infectious diseases. Epidemiology, pathogenesis, diagnostic methods and prevention of legionellosis.
3. Genus Veillonella, as purulent-inflammatory pathogens of different locations.
10. Oral streptococcus, their role in cavities and other dental diseases.
15. Principles of microbiological study of food products and interpreting the results.
16. Microbiota of medicine and cosmetics, food products; ways of contamination; ways and mechanisms of decontamination; microbiological monitoring of therapeutic, cosmetic and food products.
Module IV "Common and special virology".

To study the topics, which are not included into the practical lessons and fill in the control cards (5 cards optionally):

5. Viruses of Ebolavirus genus Filoviridae genera – pathogens, which controlled by International Health Regulations: epidemiology, diagnostics and prevention.
6. Marburg virus (MARV) and Ravn virus (RAVV) Filoviridae genera – pathogens, which controlled by International Health Regulations: epidemiology, diagnostics and prevention.
9. TVV and SEN hepatitis viruses: biological characteristics, epidemiology, pathogenesis, principles of diagnostics and prevention.
10. Zika fever viruses.

Regulations for fulfillment of the program control cards in special microbiology and virology during self-training are same as for practical classes.