

**SILABUS EDUCATIONAL COMPONENT**  
**TROPICAL INFECTIONS**  
(the name of the educational component)

for higher education students 3 course of the day forms of education (4,10 p.n.)

**educational program «Pharmacy»**

(educational program name)

**Specialty «\_226 Pharmacy, Industrial pharmacy»**

(code number, specialty name)

**Knowledge fields «22 Health Care»**

(code number, name of the field of knowledge)

**Master level of higher education**

(name of higher education level)

**TEACHER**



**Koshova**

**Olena**

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- 1. Name of the institution of higher education and department:** National University of Pharmacy, Department of Microbiology, Virology and Immunology.
- 2. Address:** Kharkiv, street Kulykivska, 12, 3rd floor, tel. 057-706-30-67.
- 3. Website:** <http://microbiology.nuph.edu.ua/>
- 4. Information about teacher:**

**Koshova Olena Yuriivna**

Candidate of Pharmaceutical Sciences, Senior Researcher, Associate Professor of Microbiology, Virology and Immunology at the National Pharmaceutical University. Experience of scientific activity – 25 years, experience of scientific and pedagogical activity – 3 years. He teaches courses: "Clinical immunology and allergy", "Microbiology with bases of epidemiology". Scientific interests: Research of pharmacological activity of biological-active substances of plant and synthetic origin, determination of possible mechanisms of their action, preclinical toxicological research of drugs and active-biological substances, immunology and allergy, diabetology, gerontology.

- 5. Consultations:** These are conducted on a daily basis by the supervisor at the Department of Microbiology, Virology and Immunology.
- 6. Brief annotation:** the academic discipline "Tropical infections" is an elective discipline for the second (master's) level in the specialty "226 Pharmacy. Industrial Pharmacy". Assessment form - credit.
- 7. The purpose of the discipline:** the purpose of teaching the discipline " Tropical infections" is to train specialists in the basic theoretical aspects of infectious pathology in the conditions of the tropical climate, to develop clinical thinking, to learn practical application of the acquired knowledge, to use tool and laboratory methods of research with emphasis on early detection of patients, ovobodnye methods of rational therapy, to render inpatient care, acquiring skills to conduct primary anti-epidemic measures.
- 8. Competence in accordance with the educational program: Soft- skills / General competence (GC):**
  - GC 1. Ability to act socially responsible and civil consciously.
  - GC 2. Ability to apply knowledge in practical situations, to make informed decisions.
  - GC 3. The desire to preserve the environment.
  - GC 4. Ability to abstract thinking, analysis and synthesis, to study and to be modern.

- GC 5. Ability to identify initiative and entrepreneurship.  
 GC 6. Knowledge and understanding of subject area and understanding of professional activity.  
 GC 7. Ability to adapt and act in the new situation.  
 GC 8. Ability to communicate in the state language both orally and in writing, ability to communicate in foreign language (mainly English) at the level, which provides effective professional activity.  
 GC 9. Skills of information and communication technologies.

**Hard-skills / Professional (special) competence (PC):**

FC 1. Ability to carry out sanitary-educational work among the population with the purpose of prevention of widespread diseases, prevention of dangerous infectious, viral and parasitic diseases, and also to promote timely detection and maintenance of inclination to treatment of these diseases according to their medical-biological characteristics and microbiological features.

**9. Program results of training (PRT):**

- PRN 1. Conduct professional activity in social interaction based on humane and ethical principles; identify future professional activity as socially important for human health.  
 PRN 2. Apply knowledge of general and professional disciplines in professional activity.  
 PRN 3. Observe the norms of sanitary-hygienic regime and safety precautions when carrying out professional activity.  
 PRN 4. To demonstrate the ability of independent search, analysis and synthesis of information from different sources and use of these results to solve typical and complex specialized tasks of professional activity.  
 PRN 8. To conduct professional communication in the state language, to use the skills of oral communication in a foreign language, analyzing texts of professional orientation and to translate other information sources.  
 PRN 9. To carry out professional activity using information technologies, "Information databases", navigation systems, Internet-resources, software tools and other information and communication technologies.  
 PRN 10. Follow the norms of communication in professional interaction with colleagues, management, consumers, to work effectively in the team.  
 PRN 12. To analyze information received as a result of scientific researches, to summarize, systematize and use it in professional activity.  
 PRN 13. Conduct sanitary-educational work in professional activity in case of outbreak of flashes of infectious, viral and parasitic diseases.  
 PRN 17. Use clinical, laboratory and tool research data to monitor the effectiveness and safety of the use of drugs.  
 PRN 19. To forecast and determine the impact of environmental factors on the quality of medicines and consumer characteristics of other products of the pharmacy range during their storage.

**10. Status of educational component:** Elective.

**11. Prerequisites of the discipline:** Mastering the discipline "Tropical infections" is based on the study of Philosophy, "Microbiology, Virology and Immunology with microbiological diagnostics"; "Clinical Microbiology"; "Clinical laboratory diagnostics", "Biological chemistry", "Normal anatomy", "Pathological anatomy", "Human physiology" and "Pathological physiology".

**12. Volume of educational component:**

Number of ECTS credits	Number of hours per educational component			
	general	lectures	practical lessons	independent work
3,0	90	9	21	60

**13. Organization of training:**

**Educational component format:**

**Content of educational component:**

**MODULE**

*The concept of Tropical Infections. Tropical protozoal invasions and helminthiasis. Tropical infections of*

bacterial, viral, rickettsial and fungal etiology.

Topic 1: An Introduction to Tropical Medicine. Features of the course of infectious diseases in countries with a tropical climate Tropical invasions caused by protozoa of the Sarcodes class (amebiasis).

Topic 2: Tropical invasions caused by protozoa of the flagellate class (leishmaniasis, trypanosomiasis).

Topic 3: Tropical invasions caused by protozoa of the Sporozoa class (malaria).

Topic 4: Tropical helminthiasis caused by trematodes (schistosomiasis, fascioliasis).

Topic 5: Tropical helminthiasis caused by cestodes (echinococcosis, diphyllbothriasis).

Topic 6: Tropical helminthiasis caused by round worms (filariasis, ascariasis, ankylostomiasis, dracunculiasis).

Topic 7: Tropical blood infections of viral etiology (yellow fever, Crimean-Congo fever, Ebola, Chikungunya fever, arbovirus encephalitis and encephalomyelitis).

Topic 8. Tropical blood infections of rickettsial etiology (Rocky Mountain spotted fever, Marseilles fever).

Topic 9. Tropical infections of the outer covers (yaws, bejel, pint, erysipelas, leprosy).

Topic 10. Tropical mycoses (Piedra, mycetoma, shingle lichen, coccidioidosis, histoplasmosis).

#### 14. Types and forms of control:

##### *Types and forms of control:*

*Current control:* oral questioning, test tasks, solution of situation problems.

*Control of content modules:* Oral questioning, test tasks.

*Semester control form:* Semester credit.

*Conditions for the control of the content modules:* To allow the control of the content module, a minimum number of points is required for the subject of the content module, and no hard-working passes of practical lessons are required.

*Conditions of admission to the semester control:* Current rating is more than 60 points, absence of unworked passes of practical, fulfillment of all requirements, which are provided by the working program of educational component.

#### 15. Educational component assessment system:

##### *Educational component assessment system::*

*The results of the semester control in the form of a semester check are estimated at 100-point, non-differentiated scale ("counted", "not counted") and at the ECTS scale.*

*The educational component is calculated according to the following ratio:*

Types of evaluation	Maximum number of points (% from the number of points per module - for content modules)
<b>Module 1</b>	
<i>The concept of Tropical Infections. Tropical protozoal invasions and helminthiases. Tropical infections of bacterial, viral, rickettsial and fungal etiology. - assessment of topics (1-10) (work at lessons 1-5): work at lessons (oral survey, preparation of test tasks); - control of the content module 1 (preparation of test tasks, oral survey).</i>	<i>100 (100 %)</i>
<i>Semester control from module 1</i>	<i>100</i>

**Independent work of higher education students is evaluated during the current control and during the control of the content module**

#### 16. Policies of the educational component:

*Policy on academic integrity.* It is based on the principles of academic integrity, given in the POL "On measures to prevent cases of academic plagiarism in NUPh". Cheating when assessing the progress of a higher education applicant during control measures in practical classes, control of content modules and semester exams is prohibited (including using mobile devices). Abstracts must have correct text references to the literature used. Detection of signs of academic dishonesty in the written work of the student is the basis for its non-acceptance by the teacher.

*Policy on attendance.* The applicant for higher education is obliged to attend classes (POL "On the organization of the educational process of NUPh") according to the schedule (<https://nuph.edu.ua/rozklad-zanyat/>), to adhere to ethical standards of conduct.

*Policy on deadlines, working out, rating increase, elimination of academic debt.* Working out of missed classes by a higher education applicant is carried out in accordance with the Regulations "Regulations on working out of missed classes by students and the procedure for eliminating academic differences in curricula at NUPh" in accordance with the schedule of working out of missed classes established at the department. Raising the rating and elimination of academic debt on the educational component is carried out by applicants for education in accordance with the procedure specified in the Regulations "On the procedure for assessing the results of higher education applicants in NUPh". Applicants for higher education are obliged to comply with all deadlines set by the department for the implementation of types of written work on the educational component. Works that are submitted late without valid reasons are evaluated at a lower grade - up to 20% of the maximum number of points for this type of work.

*Policy on appealing the assessment of the educational component (appeals).* Higher education applicants have the right to appeal (appeal) the assessment of the educational component received during the control measures. Appeals are made in accordance with the Regulations on Appealing the Results of Semester Control of Knowledge of Higher Education Applicants at NUPh.

#### 7. Information and educational and methodological support of the discipline:

<b>Required reading</b>	Tropical infections: synopsis of lecture to laboratory classes / I.L. Dikiy, N.I.Filimonova M.M.Velikaya et al. – Kharkiv: NUPH: Golden Pages, 2010. – 80p.
<b>Additional literature for in-depth study of the educational component</b>	Tropical infections [Text] : laboratory exercises. - [S. l. : s. n.], [2012].-44 p. <a href="https://www.sciencedirect.com/book/9780702051012/mansons-tropical-infectious-diseases">https://www.sciencedirect.com/book/9780702051012/mansons-tropical-infectious-diseases</a> <i>Manson's Tropical Infectious Diseases</i>
<b>Actual electronic information resources (journals, websites, etc.) for in-depth study of the educational component</b>	<a href="https://www.mdpi.com/journal/tropicalmed">https://www.mdpi.com/journal/tropicalmed</a> <i>Tropical medicine and infectious diseases</i> <a href="https://clinmedjournals.org/international-journal-of-tropical-diseases.php">https://clinmedjournals.org/international-journal-of-tropical-diseases.php</a> <i>International Journal of Tropical diseases</i> <a href="https://tropmedhealth.biomedcentral.com/">https://tropmedhealth.biomedcentral.com/</a> <i>Tropical Medicine and Health</i> <a href="http://www.who.int/en/">http://www.who.int/en/</a> <i>World health organization</i> <a href="https://www.cdc.gov">https://www.cdc.gov</a> <i>Centers for diseases control and prevention</i>
<b>Moodle distance learning system</b>	<a href="https://pharmel.kharkiv.edu/moodle/course/view.php?id=3735">https://pharmel.kharkiv.edu/moodle/course/view.php?id=3735</a>

**18. Technical and educational component software:** *Computers for testing, multimedia device, screen.*