

**SYLLABUS OF THE EDUCATIONAL COMPONENT**

**PHARMACEUTICAL INFORMATION**  
for applicants for higher education of 5 year of study  
of educational program Pharmacy  
in specialty 226 Pharmacy, Industrial pharmacy  
field of knowledge 22 Healthcare  
for second (Master's) level of higher education

**TEACHERS**



**VOLKOVA**  
Alina Viktorivna

socpharm@nuph.edu.ua



**SURIKOVA**  
Iryna Olexandrivna

socpharm@nuph.edu.ua



**TERESCHENKO**  
Lubov Volodymyrivna

socpharm@nuph.edu.ua

- 1. The name of higher education establishment and department:** National University of Pharmacy, Department of Social Pharmacy.
- 2. Address of the department:** Kharkiv, Valentynivska street, 4, 4th floor, phone 057-67-91-81.
- 3. Website of the department :** <http://socpharm.nuph.edu.ua>
- 4. Information about teachers:**

*Volkova Alina Viktorivna* – candidate of Pharmaceutical Sciences, Associate Professor, Head of the Department of Social Pharmacy. Experience of scientific and pedagogical activity – 14 years. Teaches educational components "Introduction to speciality", "Pharmaceutical law and legislation", "Social pharmacy", "Pharmaceutical Marketing and Management", "Academic Integrity". Research interests: socio-economic and regulatory aspects of pharmaceutical provision of the population..

*Surikova Iryna Olexandrivna* – candidate of Pharmaceutical Sciences, Assistant of the Department of Social Pharmacy. Experience of scientific and pedagogical activity – 5 years. Teaches educational components: "Pharmaceutical law and legislation", "Organization and economics of pharmacies", "Social pharmacy" "Pharmaceutical information". Research interests: regulatory and legal regulation of medical and pharmaceutical activities, the formation of the principles of social pharmacy in national practice.

*Tereschenko Lubov Volodymyrivna* – candidate of Pharmaceutical Sciences, Associate Professor. Experience of scientific and pedagogical activity – 9 years. Teaches "Organization and economics of

pharmacies", "Social pharmacy". Research interests: socio-economic and regulatory aspects of pharmaceutical provision of the population.

**5. Consultations** take place in an online format according to the teachers' schedule posted on the department's website.

**6. Brief summary of the educational component:** The implementation of Pharmaceutical Information into the educational process is associated with the need to prepare future professionals in the field of information support for pharmaceutical activities, the organizational structure of the national pharmaceutical information system, communication processes as a key element in the transmission of pharmaceutical information, and the functioning of pharmaceutical information (modern information processing technologies) in pharmacies. A pharmaceutical worker is obliged to understand the importance of pharmaceutical information as an integral part of the professional activities of practical pharmacy specialists and the awareness of the population.

**7. The purpose statement of studying the educational component:** formation of the foundations of modern information culture in students, their assimilation of the main theoretical approaches to the study of basic categories of pharmaceutical information, the formation of knowledge, skills and abilities in the organization of information support of pharmaceutical activities, providing future specialists with the opportunity to perform functional tasks in a high-quality manner responsibilities.

**8. Competences in accordance with the educational program:**

**Soft- skills / General competences (GC):**

GC 2. Ability to apply knowledge in practical situations, make reasonable decisions.

GC 4. Ability to abstract thinking, analysis and synthesis, to learn and be modernly trained.

GC 9. Skills in the use of information and communication technologies.

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

SC 13. Ability to demonstrate and apply in practice communication skills, fun-damental principles of pharmaceutical ethics and deontology, based on the moral obligations and values, ethical standards of professional be-havior and responsibility in accordance with the Code of Ethics for Pharmaceutical Workers of Ukraine and WHO guidelines.

**9. The program learning outcomes: (PLO):**

PLO 2. To apply knowledge of general and professional disciplines in profes-sional activities.

PLO 4. To demonstrate the ability to independently search, analyze and synthe-size information from various sources and use these results to solve typ-ical and complex specialized tasks of professional activity.

PLO 7. To perform professional activities using creative methods and approaches.

PLO 9. To carry out professional activities using information technology, "In-formation Databases", navigation systems, Internet resources, software and other information and communication technologies.

PLO 12. To analyze the information obtained as a result of scientific research, summarize, systematize and use it in professional activities.

**10. Status of the educational component:** selective

**11. Prerequisites of the educational component:** "Introduction to the specialty".

**12. The volume of the educational component:** 3ECTS credits: 90 hours of classroom attendance, 12 of them are lectures, 18 hours are practical, 60 hours individual work.

**13. Organization of training:**

**The format of teaching the educational component:** conducting lectures and practical classes for a better understanding of the topic.

**Content of the educational component:**

*Content module 1. Theoretical and applied principles of information use in pharmaceutical activity.*

**Topic 1.** Theoretical foundations of information support of pharmaceutical activity

**Topic 2.** The organizational structure of the domestic pharmaceutical information system

**Topic 3.** Communication process as a key element of information transfer

*Content module 2. Practical principles of information application in pharmaceutical activity.*

**Topic 4.** Pharmaceutical information in pharmacies

**Topic 5.** Pharmaceutical information as a component of the professional activity of practical pharmacy specialists

**Topic 6.** Pharmaceutical information as a component of public awareness

**Topic 7.** Pharmaceutical information as a component of scientific activity in the pharmaceutical sector of healthcare

**14. Forms and types of academic achievements supervision:**

*Forms and types of academic achievements supervision*

*Progress supervision:* oral survey, writing test tasks, solving situational (calculation) problems. For topics 1-7: the minimum number of points is 6, the maximum is 10.

*Supervision of content modules:* 2 content modules are provided. Content modules control includes 10 test questions: 5 tests – matching (1.5 points for the test); and 5 tests – multiple choice (1 point for 1 test)

*Semester control form:* semester credit

*Conditions for admission to the supervision of content modules:* for admission to the supervision of content module 1, it is necessary to have a minimum number of points for the topics (classes) of content module 1 – 27 from 45, for the supervision of content module 2 – minimum is 33 from 55.

*Conditions for admission to semester supervision:* a current rating of more than 60 points, absence of missed seminar classes, fulfillment of all requirements stipulated in the work program of the educational component.

### 15. Evaluation system of the educational component

The evaluation system for the educational component.

The results of the semester control in the form of a semester credit are evaluated on a 100-point, undifferentiated scale ("passed", "failed") and on the ECTS scale.

Points from the educational component are calculated according to the following ratio:

Types of evaluation	Maximum number of points (% of the number of points per module - for content modules)
<b>Module 1</b>	
Content module 1: Theoretical and applied principles of information use in pharmaceutical activity - evaluation of topics (1-3) (work in classes 1-3): work in classes (oral survey, writing test tasks, solving situational (calculation) problems); - supervision of content module 1 (writing test tasks, solving situational (calculation) tasks)	45 (45 %)
Content module 2: Practical principles of information application in pharmaceutical activity - evaluation of topics (4-7) (work in classes 5-8): work in classes (oral survey, writing test tasks, solving situational (calculation) problems); - supervision of content module 2 (writing test tasks, solving situational (calculation) tasks)	55 (55 %)
Semester Supervision of Module 1	100

For topics 1-7: the minimum number of points is 6, the maximum is 10.

Distribution of points for each seminar class:

- Evaluation of theoretical knowledge (oral survey) – 5 points (50% of the grade for the class)
- Assessment of practical abilities and skills (solving practical situational tasks) - 5 points (50% of the grade)

Evaluation of theoretical knowledge, practical skills and abilities takes place according to the following criteria

<b>Assessment of theoretical knowledge</b>	
Points (%)	Evaluation criteria
more than 75%	awarded to a higher education applicant who, when answering questions orally or in writing, has demonstrated comprehensive, systematized, in-depth knowledge of the program material, is able to competently interpret the obtained results; demonstrate knowledge of the main and additional literature provided for at the level of creative use
51% – 75%	is presented to the student of higher education, if during the oral or written answer to the question, the student of higher education showed full knowledge of the program material provided for at the level of similar reproduction, but made some insignificant errors
26% – 50%	issued if, during an oral or written answer to a question, the applicant of higher education revealed insufficient knowledge of the main program material, to the extent necessary for further study and work provided for by the program at the level of reproductive reproduction
up to 25%	is issued if, during an oral or written answer to a question, the student of higher education revealed serious gaps in knowledge of the basic material, made fundamental mistakes

### Assessment of practical skills and abilities:

Points (%)	Evaluation criteria
75%-100%	The practical task (situational task) was completed by the student of higher education independently without errors.
50%-75%	The practical task was completed independently, however, mistakes were made in calculations, principles of preparing multimedia materials, etc.
25%-50%	The practical task was completed independently, however, significant errors were made in calculations, principles of preparing multimedia materials, etc.
up to 25%	The student of higher education was unable to complete practical and situational tasks, did not issue a work journal.

Control of content modules (CM) is carried out at the last seminar classes for studying the topics of content modules. Only those applicants for higher education who have completed all types of work provided for in the curriculum (completed missed seminar classes, lectures, etc.) are admitted to the control.

Controls of content modules 1 and 2 are evaluated: minimum – 9, maximum – 15 points according to the following criteria

№	Type of work	Minimum	Maximum
1	Theoretical part:		
	5 comparison test questions (1 question – 2 points)	6	10
	5 test questions with one correct answer (1 question – 1 point)	3	5
	Total	9	15

**The individual work of applicants for higher education is evaluated during the progress supervision and during the content module supervision**

**16. Academic policies of the educational component:**

It is based on the principles of academic integrity stated in the POL "On measures to prevent cases of academic plagiarism at the National University of Pharmacy". Cheating during the evaluation of an applicant for higher education during supervision activities in practical (seminar, laboratory) classes, supervision of content modules and the semester exam is prohibited (including the use of mobile devices). Abstracts must have correct text references to the used literature. The detection of signs of academic dishonesty in the student's written work is a reason for the teacher not to credit it.

Class attendance policy. An applicant for higher education is obliged to attend classes (POL "On the organization of the educational process of the National University of Pharmacy ") according to the schedule (<https://nuph.edu.ua/rozklad-zanyat/>), to observe ethical norms of behavior.

Policy regarding deadlines, working out, rating increase, liquidation of academic debts. The completion of missed classes by an applicant for higher education is carried out in accordance with the POL "Regulations on the completion of missed classes by applicants and the procedure for eliminating academic differences in the curricula of the National University of Pharmacy" in accordance with the schedule for working out missed classes established by the department. Increasing the rating and liquidating academic debts from the educational component is carried out by the applicants in accordance with the procedure specified in the POL "On the procedure for evaluating the results of training of applicants for higher education at the National University of Pharmacy ". Applicants of higher education are obliged to comply with all deadlines set by the department for the completion of written works from the educational component. Works that are submitted late without valid reasons are assessed at a lower grade - up to 20% of the maximum number of points for this type of work.

Policy on appeals of evaluation of the educational component (appeals). Applicants for higher education have the right to contest (appeal) the evaluation of the educational component obtained during control measures. The appeal is carried out in accordance with the POL "Regulations on appealing the results of the final supervision of knowledge by applicants of higher education at the National University of Pharmacy".

**17. Information and educational and methodical support of the discipline:**

<b>The main reading suggestions</b>	Methodological developments for classroom work (multimedia materials, lecture texts), which are posted on the website of distance learning technologies of the National Pharmaceutical University:
<b>Supplementary reading</b>	1. Пardo ML, Speciale A. The Community Pharmacist: Perceived Barriers and Patient-Centered Care Communication. Int J Environ Res Public Health.

<b>suggestions for in-depth study of the educational component</b>	<p>2020 Jan 15;17(2):536. doi: 10.3390/ijerph17020536. PMID: 31952127; PMCID: PMC7013626.</p> <p>2. Vermeir P, Vandijck D, Degroote S, Peleman R, Verhaeghe R, Mortier E, et al. Communication in healthcare: a narrative review of the literature and practical recommendations. <i>International Journal of Clinical Practice</i> 2015;69(11):1257-67</p> <p>3. WHO. (2017). WHO Strategic Communications Framework for effective communications. Отримано з <a href="https://cdn.who.int/media/docs/default-source/documents/communication-framework.pdf?sfvrsn=93aa6138_0">https://cdn.who.int/media/docs/default-source/documents/communication-framework.pdf?sfvrsn=93aa6138_0</a></p>
<b>Current electronic information resources (magazines, websites) for in-depth study of the educational component</b>	<p>1. <a href="https://compendium.com.ua/uk/">https://compendium.com.ua/uk/</a> – довідник лікарських засобів</p> <p>2. <a href="https://www.apteka.ua">https://www.apteka.ua</a> – офіційний сайт щотижневика «Аптека»</p> <p>3. <a href="https://www.fip.org/">https://www.fip.org/</a> – офіційний сайт Міжнародної фармацевтичної федерації</p> <p>4. <a href="https://www.who.int">https://www.who.int</a> - офіційний сайт Всесвітньої організації охорони здоров'я</p> <p>5. <a href="https://zakon.rada.gov.ua">https://zakon.rada.gov.ua</a> – офіційна інформаційно-пошукова система «Законодавство України»</p> <p>6. <a href="http://nuph.edu.ua">nuph.edu.ua</a> – офіційний сайт Національного фармацевтичного університету</p> <p>7. <a href="http://www.moz.gov.ua">www.moz.gov.ua</a> – офіційний сайт Міністерства охорони здоров'я</p>
<b>Moodle distance learning system</b>	<a href="https://pharmel.kharkiv.edu/moodle/course/view.php?id=4063">https://pharmel.kharkiv.edu/moodle/course/view.php?id=4063</a>

**18. Technical and computer soft:** computer for testing, multimedia, screen.