

SYLLABUS OF THE EDUCATIONAL COMPONENT

INTRODUCTION TO SPECIALTY

for applicants for higher education of 1st year of study
(4 years 10 months (for foreign students studying in English))
of educational program Pharmacy
in specialty 226 Pharmacy and industrial pharmacy
specialization 226.01 Pharmacy
field of knowledge 22 Health
training for second (master) level

TEACHERS



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1. The name of higher education establishment and department: National University of Pharmacy, Social Pharmacy Department.

2. Address of the department: Kharkiv, Valentinovskaya 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 – 13 years. Teaches disciplines "Introduction to the specialty", "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.

Tereshchenko Lyubov Volodymyrivna - candidate of Pharmaceutical Sciences, Associate Professor, Associate Professor of the Department of Social Pharmacy. Experience of scientific and pedagogical activity - 12 years. Teaches disciplines " Introduction to the specialty", "Organization and economics of pharmacy", "Social pharmacy". Research interests: research of leading experience countries of the world on the issues of informatization of the health care system (eHealth) and the introduction of the latest technologies in electronic prescription in Ukraine; solving problems of prescription drugs in modern conditions.

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: "Introduction to the specialty" gives you an opportunity to get acquainted with the historical aspects of the formation and development of pharmacy and pharmaceutical education, trends in the development of the pharmaceutical healthcare sector in the

world and in Ukraine, as well as provides knowledge and understanding of the peculiarities of the professional activities of pharmaceutical workers and the organization of pharmaceutical provision of the population.

7. The purpose statement of studying the educational component: formation of knowledge of the historical background of the formation and development of pharmaceutical science and practice; formation of theoretical foundations and important professional knowledge of the organization of provision of the population with medicines and pharmacy products; formation of primary professional knowledge of the requirements for the activities of pharmacies and pharmaceutical workers.

8. Competences in accordance with the educational program:

Soft- skills / General competences (GC):

GC 02. Knowledge and understanding of the subject area; understanding of professional activity.

GC 08. The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of pharmacy, its place in the general system of knowledge about nature and society and in the development of society, equipment and technologies, to use various types and forms of motor activities for active recreation and leading a healthy lifestyle.

GC 10. The ability to act socially responsibly and civically.

9. The program learning outcomes: (PLO):

PLO 1. To have and apply specialized conceptual knowledge in the field of pharmacy and related fields, taking into account modern scientific achievements.

PLO 10. To carry out professional activities in social interaction based on humanistic and ethical principles; to identify future professional activity as socially significant for human health.

10. Status of the educational component: compulsory

11. Prerequisites of the educational component: the educational component is based on the study of general history, computer science, physics and chemistry during secondary education and is integrated with such educational components of the NUPh curriculum as Latin in Pharmacy, History of World and Ukrainian Culture, General and Inorganic chemistry, Physiology and Human Anatomy.

12. The volume of the educational component: 3ECTS credits: 90 hours of classroom attendance, 16 of them are lectures, 30 hours are practical and 4 hours are seminars. 40 hours – individual work.

13. Organization of training:

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

Content of the educational component:

Content module 1. *Historical aspects of the development of medicine and pharmacy*

Topic 1. *Features of university education. Academic integrity in the educational process.*

Topic 2. *History of medical and pharmaceutical education. History of the formation and development of the National University of Pharmacy.*

Topic 3. *Formation and development of medicine and pharmacy in Ancient Times.*

Topic 4. *Pharmacy of the Middle Ages and the Renaissance.*

Topic 5. *Pharmacy of Modern times. Development of pharmacy in Ukraine and outstanding Ukrainian scientists*

Content module 2. *Organization of pharmaceutical supply to the population.*

Topic 6. *Organization of pharmaceutical provision of the population and state regulation of pharmaceutical activities. Areas of professional realization of the Master of Pharmacy*

Topic 7. *Organization of pharmacies as health care institutions. Organization of sanitary and anti-epidemic regime of pharmacies*

Topic 8. *Pharmacy assortment. Basics of dispensing medicines from a pharmacy. The concept of self-medication and self-prevention*

Topic 9. *Control and quality assurance of pharmacy assortment goods during wholesale and retail sales.*

Topic 10. *The role of information in pharmaceutical activities. Pharmaceutical information. Innovative technologies in providing the population with medicines.*

Topic 11. *Pharmacy in the countries of the world. National peculiarities of pharmaceutical practice.*

14. Forms and types of academic achievements supervision:

Forms and types of academic achievements supervision

Progress supervision: oral survey, writing test tasks, solving situational problems

Supervision of content modules: 2 content modules are provided. CMs include answers to test tasks (matching term with definition, multiple choice questions)

Semester control form: semester credit

Conditions for admission to the supervision of content modules: for admission to the supervision of content module 2, it is necessary to have a minimum number of points for the topics (classes) of content module 1, for the supervision of content module 1

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

14. 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:

Assessment of practical skills - applicants for higher education are given from 0 to 4 points:			
The type of task being assessed	System evaluation knowledge, points	Evaluation criteria	
Practical (situational) task	from 0 to 4.0	4.0-3.0	The practical task (situational task) is performed by the student independently without errors.
		2.0-1.0	The practical task was performed independently, however, mistakes were made in the use of legal acts, interpretation of terms, principles of preparation of multimedia materials, etc.
		0	The student could not perform practical and situational tasks, and did not draw up a working journal.
Assessment of theoretical knowledge- applicants for higher education are given from 0 to 3 points:			
Assessment of theoretical knowledge, practical skills and abilities (written or oral answer)	from 0 to 3,0	3.0	is given to a student who the oral or written answer to a question has revealed comprehensive, systematized, deep knowledge of program material, is able to interpret the received results competently; demonstrate knowledge of basic and additional literature provided at the level of creative use
		2.0	is given to the student, if during the oral or written answer to the question the applicant for higher education revealed complete knowledge of the program material, provided at the level of similar reproduction, but made some insignificant errors
		1.0	is given, if during the oral or written answer to the question the student found insufficient knowledge of the main program material, in the amount necessary for further study and work provided by the program at the level of reproductive reproduction.
		0	is given, if at the oral or written answer to a question the student has found serious gaps in knowledge of the basic material, and has made fundamental mistakes.

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:

<p>The main reading suggestions</p>	<ol style="list-style-type: none"> 1. Introduction to the specialty with introductory training: training manual for students of higher school / A.A. Kotvitska, A.V. Volkova, L.V. Tereschenko, et al. – Kharkiv: NUPh, 2021. – 84 p. 2. Introduction to Pharmacy: History of Medicine and Pharmacy: methodological recommendations for seminars and individual work for students specialty "Pharmacy" of the faculty of foreign citizens education / A. A. Kotvitska, I. V. Kubarieva, A. V. Volkova, A. V. Cherkashyna, I. O. Lobova. - Kharkiv : NUPh, 2018. – 68 p. 3. Organization of pharmaceutical providing of the population : textbook for university students / A.S. Nemchenko, I. V. Zhirova, V. N. Nazarkina et al. – Kh. : NPhU, 2014. – 268 p. 4. Pharmaceutical Law and Legislation : the textbook for applicants for higher education / A. A. Kotvitskaya, I. V. Kubarieva, A. V. Volkova, A. V. Cherkashyna, I. V. Zhirova, A. A. Surikov, I.A. Surikova. – Kharkiv : NUPh : Golden Pages, 2019. – 204 p.
<p>Supplementary reading suggestions for in-depth study of the educational component</p>	<ol style="list-style-type: none"> 1. Anderson, S. Making Medicines: A Brief History of Pharmacy and Pharmaceuticals / S. Anderson. – London : Pharmaceutical Press, 2005. – 318 p. 2. Directive 2004/24/EC of the European Parliament and the Council of 31 March 2004 amending, as regards traditional herbal medicinal products, Directive 2001/83/EC on the Community code relating to medicinal products for human use. 3. Directive 2004/27/EC of the European Parliament and the Council of 31 March 2004 amending Directive 2001/83/EC on the Community code relating to medicinal products for human use. 4. Duffin, J. History of medicine: a scandalously short introduction / J. Duffin. – Toronto : University of Toronto Press, 2016. – 480 p. 5. Higby, G. J. A Cornerstone of Modern Institutional Pharmacy Practice: Mirror to Hospital Pharmacy / G. J. A. Higby // Pharm. Hist. – 2014. – Vol. 56, № 3-4. – P. 59–65. 6. Magner, L. N. A History of Medicine / L. N. Magner, O. J. Kim. – 3rd ed. – Boca Raton : CRC Press, 2017. – 446 p. 7. Making Medicines: A History of Pharmacy and Pharmaceuticals / ed. by S.

	<p>Anderson. – London ; Chicago : Pharmaceutical Press, 2013. – 336 p.</p> <p>8. Medicines, Ethics and Practice. The professional guide for pharmacists, 2015. – London, 2015. –172 p.</p> <p>9. Medicines use review. A toolkit for pharmacists / International Pharmaceutical Federation. – The Hague, 2020. – 20 p.</p> <p>10. Parascandola, J. Pharmacology and Folklore: The Arsenic Eaters of Styria / J. Parascandola // Pharmacy in History. – 2015. – Vol. 57, № 1-2. – P. 3–14.</p>
<p>Current electronic information resources (magazines, websites) for in-depth study of the educational component</p>	<ol style="list-style-type: none"> 1. Al-Ghazal, S. K. The Valuable Contributions of Al-Rhazi (Rhazes) in the History of Pharmacy During the Middle Ages [Electronic resource]. – Access mode: http://www.ishim.net/ishimj/4/02.pdf 2. FIP Statement of Professional Standards – Code of ethics for pharmacists. – The Hague : FIP, 2014. [Electronic resource]. – Access mode: http://www.fip.org/statements 3. Good Pharmacy practice in developing countries. Recommendations for step-wise implementation [Electronic resource]. – Access mode: https://www.fip.org/files/fip/Statements/latest/Dossier%20003%20total.PDF 4. Guide to good manufacturing practice for medicinal products. Pt. I. PIC/S July 2018 [Electronic resource]. – Access mode: https://www.tga.gov.au/sites/default/files/pe009-14-gmp-guide-part1-basic-requirements-medicinal.pdf 5. Integrated Addendum to ICH E6(R1): Guideline for Good Clinical Practice. Current Step 4 version dated – 9 November 2016 [Electronic resource]. – Access mode: https://database.ich.org/sites/default/files/E6_R2_Addendum.pdf 6. Patient safety. WHO global patient safety challenge: medication without harm [Electronic resource]. – Geneva : World Health Organization, 2017. – Access mode: http://www.who.int/patientsafety/medication-safety/en/ 7. Pharmaceutical Care – the PCNE definition [Electronic resource] / S. S. Allemann [et al.] // International Journal of Clinical Pharmacy. – Access mode: http://dx.doi.org/10.1007/s11096-014-9933-x 8. Pharmacy practice and the FIP sections [Electronic resource]. – Access mode: https://www.fip.org/pharmacy-practice 9. World Health Organization. Official website. [Electronic resource]. – Access mode: https://www.who.int/home 10. World Health Organization. Guidelines for developing national drug policies [Electronic resource]. – Access mode: https://apps.who.int/iris/handle/10665/40427 11. WHO. Glossary medicines areas coordination [Electronic resource]. – Access mode: https://www.who.int/medicines/areas/coordination/English_Glossary.pdf 12. State Regulation of Compounding Pharmacies [Electronic resource]. – Access mode: https://www.ncsl.org/research/health/regulating-compounding-pharmacies.aspx
<p>Moodle distance learning system</p>	<p>https://pharmel.kharkiv.edu/moodle/course/view.php?id=4902</p>

18. Technical and computer soft: computers for testing, a multimedia projector for lectures, Internet access; video conferencing software ZOOM, modular object-oriented dynamic learning environment MOODLE 3.9.8.