THE SYLLABUS OF THE EDUCATIONAL COMPONENT
INTRODUCTION TO SPECIALTY

**for higher education applicants 1-st year
educational programme "Pharmacy"
speciality "226 Pharmacy and industrial pharmacy"
specialization 226.01 Pharmacy
area of knowledge "22 Health"**

Master's level of higher education

TEACHERS

			Information about the teacher
Alina Viktorivna VOLKOVA	**Head of the Social pharmacy Department, Candidate of Pharmaceutical Sciences (PhD), Associate Professor**	**volkova.nuph@gmail.com**	https://socpharm.nuph.edu.ua/category/teachers/volkova-alina-viktorivna/

1. Name of the higher education institution and structural unit**:** National University of Pharmacy, Social Pharmacy Department

2. Department address: Kharkiv, Valentynivska street, 4, 3-4th floor, phone 057-67-91-81

3. Department website: http://socpharm.nuph.edu.ua

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

5. Abstract 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.*

6. Purpose of teaching 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.*

7. Competencies in accordance with the educational programme:

Soft- skills / General competencies (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.

8. Programme 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.

9. The status of the educational component: *Compulsory*

10. 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.*

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

12. Organisation of the teaching process:

Teaching methods:

The following methods are used:

− *explanatory (information and reproductive) method:* lecture-based learning − lectures, video materials;

− *reproductive method:* traditional practical, seminar classes;

− *problem-based learning:* methods of interactive visualisation of the educational material − timeline, word clouds;

The 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.*

Organisation of individual work: *Individual work includes studying questions on topics of the educational component that are not included in classroom learning and performing tasks on these issues in order to consolidate the theoretical material.*

13. Types and forms of control:

Types and forms of control:

Current control:

Knowledge control in each lesson: oral questioning, passing test tasks, solving situational tasks, preparing a presentation, solving problems for individual work.

Control of content modules: oral questioning, passing test tasks.

Conditions for admission to the control of content modules: for admission to the control of content module 2, you must have a minimum number of points for the classes of content module 1, for the control of content module 1.

Semester control:

The form of semester control: semester credit test.

Semester examination: answers to theoretical questions, passing test tasks.

Conditions for admission to the semester control: the current rating is more than 60 points, the academic detention of missed practical classes, the fulfillment of all types of work and requirements provided for in the working programme of the educational component.

14. The assessment system for the educational component:

Assessment of the acquisition of topics of the educational component during classes:

The number of the lesson of the educational component	The maximum number of points by lesson	Distribution of the maximum number of points per lesson by type	Types of work for which the applicant receives points

			of work
Content module 1			
Lesson 1	7	2	solving problems for individual work
		3	oral answer
		2	solving situational problems
Lesson 2	7	3	oral answer
		4	solving situational problems
Lesson 3	7	3	oral answer
		4	solving situational problems
Lesson 4	7	4	preparing a presentation
		3	solving problems for individual work
Lesson 5 *Final test of CM 1 assimilation*	10	5	oral answer
		5	testing
Total points for content module 1:		38	
Content module 2			
Lesson 6	7	3	oral answer
		4	solving situational problems
Lesson 7	7	3	oral answer
		4	solving situational problems
Lesson 8	7	3	oral answer
		4	solving situational problems
Lesson 9	7	3	oral answer
		4	solving situational problems
Lesson 10	7	3	oral answer
		4	solving problems for individual work
Lesson 11	7	3	oral answer
		4	solving situational problems
Lesson 12	7	3	solving problems for individual work
		4	preparing a presentation
Lesson 13 Final test of CM 2 assimilation	13	8	oral answer
		5	testing
Total points for content module 2:		*62*	
Total points per module:		*100*	

The assessment of applicants by type of work during classes:

Types of work for which the applicant receives points	The maximum number of points
oral answer to theoretical questions	27
solving situational problems	36
preparing a presentation	8
solving problems for individual work	6
Total points:	77

The assessment during the content module control:

Types of work for which the applicant receives points	Distribution of the maximum number of points for the content module control by type of work	The maximum number of points for the content module control
Content module 1		
testing	*5*	*10*
answers to theoretical questions	*5*	

Content module 2		
testing	*5*	*13*
answers to theoretical questions	*8*	
Total points for control of the content modules:		*23*

Assessment of individual work of a higher education applicant: *during the current control:* 6 points: 3 points – solving problems for individual work (Topic 5), 3 points – solving problems for individual work (Topic 11)

The assessment scale of semester credit test:

Total points by a 100-point scale	ECTS rating scale	Assessment by an undifferentiated scale
90-100	A	passed
82-89	B	
74-81	C	
64-73	D	
60-63	E	
35-59	FX	failed
1-34	F	

15. Educational component policies:

Academic Integrity Policy. It is based on the principles of academic integrity given in the Regulation "On measures to prevent cases of academic plagiarism in the NUPh". Cheating when assessing the success of a higher education applicant during control activities in practical (seminar, laboratory) classes, monitoring of content modules and semester examinations is prohibited (including using mobile devices). Abstracts must have correct text links to the literature used. Identification of signs of academic dishonesty in the written work of a higher education applicant is the basis for its disregard by the teacher.

Class attendance policy. A higher education applicant is required to attend academic studies (Regulation "On the organisation of the educational process of the NUPh") according to the class schedule (https://nuph.edu.ua/rozklad-zanyat/), adhere to ethical standards of behaviour.

Policy on deadlines, academic detention, improving the rating, and eliminating academic debt. Academic detention of missed classes by a higher education applicant is carried out in accordance with the "Regulations on academic detention of missed classes by applicants and the procedure for eliminating the academic difference in the curriculum in the NUPh" in accordance with the schedule for academic detention of missed classes set at the Department. Improving the rating and eliminating academic debt on the educational component is carried out by higher education applicants according to the procedure given in the Regulation "On the procedure for assessing the learning outcomes of higher education applicants in the NUPh". Higher education applicants are required to comply with all deadlines set by the Department for performing types of written works on the educational component. Works that are submitted in violation of deadlines without valid reasons are rated at a lower rating – up to 20% of the maximum number of points for this type of work.

Policy on challenging the assessment on the educational component (appeals). Higher education applicants have the right to appeal the assessment on the educational component obtained during control activities. The appeal is carried out in accordance with the "Regulations on appealing the results of semester control of knowledge of higher education applicants in the NUPh".

Policy on the recognition of learning outcomes obtained through non-formal and/or informal education by higher education applicants. Higher education applicants have the right to recognise the results of training acquired in non-formal and informal education in accordance with the Regulation "On the procedure for recognising learning outcomes obtained through non-formal and/or informal education by applicants for higher education in the NUPh".

Within the framework of academic freedom of the teacher, instead of performing types of work on the topic of the educational component, it is possible to credit a non-formal education of a higher education applicant.

16. Information and methodological support of the educational component:

Required reading	1. Introduction to Specialty : training manual for students of higher school / A.A. Kotvitska, A.V. Volkova, L.V. Tereschenko [et al.] – Second edition. – Independent electronic publication. - Kharkiv: National University of Pharmacy, 2024. – 88 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. : NPhaU, 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.
Additional literature for in-depth study of the educational component	1. 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. 2. 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. 3. Duffin, J. History of medicine: a scandalously short introduction / J. Duffin. – Toronto : University of Toronto Press, 2016. – 480 p. 4. 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. 5. Magner, L. N. A History of Medicine / L. N. Magner, O. J. Kim. – 3rd ed. – Boca Raton : CRC Press, 2017. – 446 p. 6. Making Medicines: A History of Pharmacy and Pharmaceuticals / ed. by S. Anderson. – London ; Chicago : Pharmaceutical Press, 2013. – 336 p. 7. Medicines, Ethics and Practice. The professional guide for pharmacists, 2015. – London, 2015. –172 p. 8. Medicines use review. A toolkit for pharmacists / International Pharmaceutical Federation. – The Hague, 2020. – 20 p. 9. Parascandola, J. Pharmacology and Folklore: The Arsenic Eaters of Styria / J. Parascandola // Pharmacy in History. – 2015. – Vol. 57, № 1-2. – P. 3–14.
Up-to-date electronic information resources (journals, websites, etc.) for in-depth study of the educational component	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
Moodle distance learning system	https://pharmel.kharkiv.edu/moodle/course/view.php?id=2548

17. Material and technical support and software of the educational component: computers for testing, a multimedia projector for lectures, Internet access; video conferencing software ZOOM, modular object-oriented dynamic learning environment MOODLE 3.9.8.