



MINISTRY OF HEALTH OF UKRAINE  
NATIONAL UNIVERSITY OF PHARMACY  
Faculty of pharmacy  
Department of pharmaceutical technology of drugs



**TECHNOLOGY OF HOMEOPATHIC MEDICINES**

(name of educational component)

**EDUCATIONAL WORK PROGRAM  
of educational component**

training second master's level

(name of higher education level)

in specialty 226 Pharmacy, industrial pharmacy

(code and specialty name)

field of knowledge 22 Public Health

(code and name of field of knowledge)

of educational program Pharmacy (for foreign students)

in specialization(s) \_\_\_\_\_

(name of specialization, if available)

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year of creation

CONSIDERED AND APPROVED: NATIONAL UNIVERSITY OF  
PHARMACY

EDUCATIONAL COURSE TEAM:

VYSHNEVSKA Liliia, head of the pharmaceutical technology of drugs  
department, doctor of pharm. sc., prof. of a higher education institution

POLOVKO Nataliia, professor of the pharmaceutical technology of drugs  
department, Doctor of Pharm. sc., prof. of a higher education institution

KONOVALENKO Ilona, associate professor of the pharmaceutical technology  
of drugs department, PhD, ass. prof. of a higher education institution

The work program was reviewed and approved at the meeting of the  
pharmaceutical technology of drugs

Record No. 1 from "\_ 1\_" of September 2023

Head of the department



prof. Liliia VYSHNEVSKA

The work program was approved at a meeting of the specialized methodological  
commission for technological disciplines

Record No. 1 from 1 September 2023

Head of the specialized commission



prof. Olena RUBAN

## INTRODUCTION

**The educational component study program** "Technology of homeopathic medicines" is compiled in accordance with the Standard of Higher Education of Ukraine (hereinafter - the Standard) / Educational (educational-professional, educational-scientific) program second (master's) level

fields of knowledge 22 Health care

specialties 226 Pharmacy, industrial pharmacy

educational program "Pharmacy"

**Description of the educational component (abstract)** The optional educational component "Technology of homeopathic medicines" is an important component of the training of a future specialist and a part of general human culture. The study of this educational component contributes not only to increasing the professional level of conducting scientific research activities, but also to increasing the culture of thinking, the culture of mental activity in general, which helps a person to better understand and evaluate reality.

**The subject** of study of the educational component "Technology of homeopathic medicines" is an introduction to the basics of the homeopathic method of treatment, theories of the mechanism of action of these drugs, prescribing recipes, the technology of various homeopathic drugs, the peculiarities of the use of natural raw materials in homeopathy, and the application of methods of qualitative analysis of homeopathic drugs with an emphasis on modern instrumental methods of analysis.

**Interdisciplinary connections.** "Technology of homeopathic medicines" as an educational component is based on the study by students of higher education of admission to pharmacy, drug technology of pharmacy production, sociology, mathematics, the basics of scientific research, ethics and deontology, professional ethics of higher education, the basics of system analysis, information technology in science, computer technology in pharmacy.

1. Purpose and tasks educational component

1.1 The purpose of teaching the educational component "Technology of homeopathic medicines" is to deepen professional knowledge and familiarize with the theoretical and practical bases of the technology of homeopathic medicinal products in pharmacy conditions, quality control, rules of registration before release, storage conditions and features of use by patients.

1.2 The main tasks of the educational component "Technology of homeopathic medicines" are the development of theoretical knowledge, practical skills and skills of manufacturing homeopathic medicinal products in the conditions of pharmacies by students of higher education.

1.3. Competencies and planned learning outcomes, the formation of which is facilitated by the educational component (relationship with the normative content of the training of higher education applicants, formulated in terms of learning outcomes in the Standard).

According to the requirements of the standard, the educational component ensures the acquisition of higher education

*competencies:*

*integral:*

the ability to solve typical and complex specialized tasks and practical problems in professional pharmaceutical activity using the provisions, theories and methods of fundamental, chemical and technological sciences; integrate knowledge and solve complex issues, formulate judgments based on insufficient or limited information; clearly and unambiguously convey their conclusions and knowledge, rationally justifying them, to a professional and non-specialist audience.

*general competences:*

GC 2. Ability to apply knowledge in practical situations.

GC 6. Knowledge and understanding of the subject area and understanding of professional activity.

GC 9. Skills in using information and communication technologies.

GC 11. The ability to evaluate and ensure the quality of the work performed.

*special (professional):*

PC 7. The ability to ensure the proper storage of medicines and other products of the pharmacy assortment in accordance with their physicochemical properties and the rules of Good Storage Practice (GSP) in health care institutions.

PC 12. Ability to use knowledge of regulatory and legislative acts of Ukraine and recommendations of proper pharmaceutical practices in professional activities.

PC 14. The ability to organize and carry out the production activities of pharmacies for the manufacture of medicinal products in various dosage forms according to the prescriptions of doctors and orders of medical institutions, including the justification of technology and the selection of auxiliary materials in accordance with the rules of Good Pharmacy Practice (GPP).

Integrative final *program learning outcomes* (PLO), the formation of which is facilitated by the educational component:

PLO 3. Adhere to the norms of the sanitary and hygienic regime and the requirements of safety equipment when carrying out professional activities.

PLO 4. Demonstrate the ability to independently search, analyze and synthesize information from various sources and use these results to solve typical and complex specialized tasks of professional activity.

PLO 9. To carry out professional activities using information technologies, "Information databases", navigation systems, Internet resources, software and other information and communication technologies.

PLO 26. To choose a rational technology, to manufacture medicinal products in various medicinal forms according to the prescriptions of doctors and orders of medical institutions, to process them before discharge. Perform technological operations: weigh, measure, dose various medicinal products by weight, volume, etc. Develop and draw up technological documentation for the manufacture of medicinal products in pharmacies.

As a result of studying the educational component, the student must *know*:

- basic concepts, content and functions of homeopathy as a science;
- the place, state and prospects of the development of homeopathy in modern medicine and pharmacy; the main regulatory framework regulating the production and quality of homeopathic medicines;
- mechanisms of action of homeopathic medicines;
- basic principles of homeopathy;
- peculiarities of prescribing homeopathic prescriptions;
- methods of quality control of homeopathic raw materials;
- design features for storing homeopathic medicines.

*be able to*:

- use regulatory documents and reference literature on homeopathic pharmacy;
- prescribe homeopathic prescriptions;
- describe and characterize homeopathic medicinal raw materials and manufactured homeopathic preparations;
- to potentiate homeopathic matrix tinctures and homeopathic dilutions according to the methods of SPhU;
- conduct quality control of homeopathic raw materials and manufactured homeopathic drugs.

*possess*:

- basic concepts, content and functions of homeopathy as a science;
- mechanisms of action of homeopathic medicines;
- the technology of manufacturing homeopathic preparations;
- knowledge of quality control of homeopathic raw materials and manufactured

homeopathic preparations.

## **2. Information content of the educational component**

90 hours of 3 ECTS credits are allocated to the study of the educational component

### **Content module 1. General issues of the technology of homeopathic medicines. Technology of basic homeopathic drugs**

#### **Topic 1. Concept of homeopathy and its main principles**

State regulation of the production of homeopathic medicines. Peculiarities of prescribing homeopathic prescriptions. Nomenclature of homeopathic medicines. Basic concepts and terms of homeopathy: homeopathy, homeopathic pharmacy, homeopathic drugs, homeopathic diagnosis, vital forces, principle of likeness. State regulation of the production of homeopathic medicines. Problems of the technology of homeopathic drugs as a science and educational discipline. Nomenclature of homeopathic medicines (Order of the Ministry of Health of Ukraine No. 165 dated 03.08.1989, Project "Ukrainian nomenclature of monocomponent homeopathic medicines").

#### **Topic 2. Classification of homeopathic drugs. Preparation of homeopathic matrix tinctures according to SPhU and their quality control**

Classification of homeopathic preparations obtained from raw materials of plant, animal and mineral origin. Technology of homeopathic matrix tinctures depending on the percentage content of juice in plant raw materials according to SPhU, physicochemical methods of quality analysis of matrix tinctures.

#### **Topic 3. Dilution scales. The principle of potentiation of homeopathic drugs. Potentiation of homeopathic matrix tinctures**

Dilution scales: decimal, hundredth, M, LM; their essence, designation and concentration of active substances. Classification of homeopathic dilutions (low, medium, high). Appointment of appropriate dilutions for the treatment of acute and chronic diseases. Features of the technology of potentiation of homeopathic matrix tinctures depending on the method of preparation. Solvents used for dilution of base preparations.

#### **Topic 4. Homeopathic dilutions. Technology of liquid homeopathic dilutions, preparation for release and quality control**

Peculiarities of preparation of dilutions on decimal and hundredth scales. Liquid homeopathic dilutions from mineral substances and chemical compounds. Homeopathic dilutions. Characteristic. Peculiarities of application in homeopathic practice. Homeopathic drops. Definition. Characteristic. Technology. Quality control. Features of registration before vacation.

#### **Topic 5. Goering's law of healing. Technology of homeopathic oils, preparation for release and quality control**

Basic principles of Goering's law of healing. Comparison of allopathic and homeopathic therapy. Oils. Definition. Characteristic. Quality control. Features of registration before release. Solvents used for the manufacture of homeopathic oils.

#### **Topic 6. Technology of basic drugs, liquid homeopathic medicinal forms, preparation for release and their quality control. Control of acquisition of CM 1**

### **Content module 2. Technology of homeopathic dosage forms**

#### **Topic 7. Constitutional type of the patient. Homeopathic granules. Technology of homeopathic granules, preparation for release and their quality control**

Constitutional type of the patient. Solid dosage forms in homeopathic practice. Homeopathic granules. Definition. Characteristic. Technology and requirements for their quality. Reception features. Features of registration before vacation.

#### **Topic 8. Triturations are homeopathic. Homeopathic trituration technology, preparation for release and quality control**

Triturations are homeopathic. Definition. Characteristic. Quality control Features of registration before release. Storage conditions for triturations, sanitary regime. Excipients in the technology of solid medicines.

**Topic 9. Complex homeopathic medicines. Technology of complex homeopathic medicines, preparation for release and their quality control**

Principles of complex homeopathy. Classification and characteristics of complex homeopathic drugs. Technology of solid and liquid complex means. Quality control Features of registration before release.

**Topic 10. Technology of solid, complex homeopathic medicinal forms, preparation for release and their quality control. Control of acquisition of CM 2**

**3. Form of semester control of success teaching**

Semester assessment

**4. Methodological support**

1. Work program on "Technology of homeopathic medicines".
2. Glossary of terms, textbook, workshop.
3. State Pharmacopoeia of Ukraine, orders of the Ministry of Health of Ukraine.
4. Lecture material (multimedia presentations, lecture texts, calendar and thematic plan of lectures).
5. Calendar and thematic plans of practical classes.
6. Questions for independent work of students of higher education.
7. Questions, assignments, assignments or cases for current, meaningful and final modular controls of knowledge and skills of higher education applicants.
8. Tickets for CMC 1, CMC 2.
9. Video films.
10. Internet resources.

**5. Reading suggestions**

**6. The main reading suggestions**

1. Гомеопатична фармація і медицина. Глосарій термінів та визначень: навч. посібник / Вишневська Л.І. та ін. / Х., Вид-во НФаУ, 2017 р. – 437 с.
2. Вишневська Л.І., Ромась К.П. Екстемпоральні гомеопатичні препарати для лікування нікотинової залежності: перспективи створення. «Доказова гомеопатія»: збірник доповідей VIII з'їзду гомеопатів України, присвяченого 120-річчю дня народження засновника Київської гомеопатичної школи Д. В. Попова (13-14 листопада 2019 р.). Київ: «Гомеопатія від Попових», 2019. С. 83-85.
3. Державна Фармакопея України : в 3 т. / ДП «Український науковий фармако-пейний центр якості лікарських засобів». – 2-е вид. – Х. : ДП «Український науковий фармакопейний центр якості лікарських засобів», 2014. Т. 3. 732 с.
4. Ernst E. Homeopathy: what does the "best" evidence tell us? Medical Journal of Australia. 2019. Vol. 192. P. 458-460.

**Supplementary reading suggestions**

1. Державна фармакопея України / ДП «Український науковий фармакопейний центр якості лікарських засобів». 1-е вид. Харків : Державне підприємство "Український науковий фармакопейний центр якості лікарських засобів", 2014. Т. 2. 724 с.
2. Державна Фармакопея України / ДП «Український науковий фармакопейний центр якості лікарських засобів». 2-е вид. Харків : Державне підприємство «Український науковий фармакопейний центр якості лікарських засобів», 2015. Т. 3. 732 с.
3. Державна Фармакопея України / ДП «Український науковий фармакопейний центр якості лікарських засобів» 2-е вид. Харків : Державне підприємство «Український науковий фармакопейний центр якості лікарських засобів». 2015. Т. 1. 1128 с.
4. Dysmenorrhea and endometriosis in the adolescent. –AGOG Committee Opinion № 760 // ІСУ НФаУ Редакція 03 Дата введення: 01.09.2022 р. Стор. 6 - із 7

American College of Obstetricians and Gynecologists. J. Obstet. Gynecol. 2018. 132. P. 249-258.

**7. Electronic resources, including the Internet**

- [atl.nuph.edu.ua](http://atl.nuph.edu.ua) – сайт кафедри аптечної технології ліків
- Наукова бібліотека НФаУ: Режим доступу : <http://dspace.ukrfa.kharkov.ua>; <http://lib.nuph.edu.ua>
- [www.moz.gov.ua](http://www.moz.gov.ua) – офіційний сайт Міністерства охорони здоров'я України
- [nuph.edu.ua](http://nuph.edu.ua) – офіційний сайт Національного фармацевтичного університету
- [library@nuph.edu.ua](mailto:library@nuph.edu.ua) – сайт бібліотеки НФаУ
- Сайт дистанційного навчання НФаУ : сторінка кафедри АТЛ – [Електронний ресурс]. – Режим доступу: <http://pharmel.kharkiv.edu/moodle/course/>
- Компендіум: лікарські препарати. – [Електронний ресурс]. – Режим доступу: <http://compendium.com.ua/> – станом на 10.08.2023 р.
- Державний реєстр лікарських засобів України. – [Електронний ресурс]. – Режим доступу: <http://www.drlz.com.ua/> – станом на 10.08.2023 р.