

SYLLABUS OF THE EDUCATIONAL COMPONENT

Medical and pharmaceutical Commodity Science

(the name of the educational component)

for applicants for higher education of 4 year of study full-time form of education (2023-2024 year of study)

of educational program **«Pharmacy»**

(Educational Program Name)

in specialty **«226 Pharmacy, Industrial pharmacy»**

(Code and Specialty Name)

field of knowledge **«22 Health care»**

(Code and Knowledge Field Name)

training for **second (master's) level**

(Higher Educational Level Name)

TEACHER



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

2. Address of the department: Kharkiv, Valentinovskaya St. , 4; 3th floor , phone +38(0572) 67-91-70.

3. Web site of the department: : <http://economica.nuph.edu.ua>

4. Information about teachers:

BARANOVA Inna Ivanivna. Doctor of Pharmaceutical Sciences, Professor of the Department of Organization and Economy of Pharmacy of the National University of Pharmacy. Experience of scientific activity - 26 years, experience of scientific and pedagogical activity – 22

years. Teaches disciplines: "Medical and pharmaceutical Commodity Science", "Pharmaceutical and perfumery and cosmetic Commodity Science", "Medical Commodity Science", "Medical equipment in physical therapy". Research interests: commodity analysis of medical products, devices, apparatuses, cosmetics means and medicines.

5. Consultations are available according to schedule:

7, 8 semester – skin week about 12-00 online in the Zoom format, consultations are conducted by Professor Baranova I.I. Conference 8577371130 password 147852

(<https://zoom.us/j/8577371130?pwd=bm9EZDZsb0RrRG1hdDZQZUNhYzVrdz09>)

6. Brief summary of the educational component: Abstract of the educational component: The educational component is mandatory in the training program for applicants of the "Medical and pharmaceutical commodity science" specialty under the "Pharmacy" educational program. It examines in detail the conduct of commodity analysis and the quality requirements for medical products, cosmetics and finished medicines.

7. The purpose statement of studying the educational component: "Medical and pharmaceutical commodity science" is to master the technique of commodity analysis; study of the requirements for the quality of ready-made medicinal products, medical devices (MD) and the rules for their use; study of factors that affect the quality of medicines and MD; organization of rational methods of their storage.

8. Competences in accordance with the educational program:

Soft-skills / General competences (CG):

CG 3. Desire to preserve the environment.

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

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

PC 2. Ability to provide medical advice on prescription and over-the-counter medications and other products of the pharmacy range; pharmaceutical care during the selection and sale of over-the-counter medications by assessing the

risk / benefit, compatibility, indications and contraindications based on data on the health of a particular patient, taking into account biopharmaceutical, pharmacokinetic, pharmacodynamics and physicochemical characteristics of the medicine and other pharmaceutical products.

PC 7. Ability to ensure proper storage of medications and other products of the pharmacy range in accordance with their physical and chemical properties and the rules of Good Storage Practice (GSP) in health care institutions.

PC 8. Ability to organize the activities of pharmacies to provide the population, health care institutions with medications and other products of the pharmacy range and implement appropriate reporting and accounting systems (management, statistical, accounting and financial) in accordance with the requirements of the National Medical Policy, Appropriate Pharmacy Practice (GPP) and to carry out commodity analysis, administrative record keeping while taking into account the organizational and legal norms of the pharmaceutical legislation..

9. The program learning outcomes: (PLO):

PLO 4. To 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 5. To position your professional activities and personal qualities in the pharmaceutical labor market; to formulate the purposes of own activity taking into account public and industrial interests.

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

PLO 14. To determine the advantages and disadvantages of medications of different pharmacological groups, taking into account their chemical, physicochemical, biopharmaceutical, pharmacokinetic and pharmacodynamics features. To recommend to consumers over-the-counter medications and other products of the pharmaceutical range with the provision of counseling and pharmaceutical care.

PLO 19. To predict and determine the impact of environmental factors on the quality of medicines and consumer characteristics of other products of the pharmaceutical range during their storage.

10. Status of the educational component: compulsory.

11. Prerequisites of the educational component: "Organization and economy of pharmacy/"

12. The amount of the educational component: 4 ECTS credits 120 hours: 60 hours of classroom classes, of which 10 hours of lectures, 50 hours of practical classes. 60 hours of independent work.

13. Organization of training:

The format of teaching the educational component conducting lectures and practical classes.

Content of the educational component:

Content module 1. *Theoretical bases of commodity science.*

Topic 1. *Theoretical bases of commodity science. Packaging and labeling of medical goods*

Topic 2. *Normative documentation for medical and pharmaceutical goods.*

Topic 3. *Classification and Coding of pharmacy range goods*

Topic 4. *Commodity science analysis goods of the pharmacy assortment.*

Topic 5. *Commodity science analysis of rubbers goods and items of care of patients*

Topic 6. *Commodity science analysis of instruments and devices for piercings, injections and transfusions*

Topic 7. *Commodity science analysis of dressing materials and ready dressings*

Topic 8. *Commodity science analysis of suture materials and piercing surgical needles*

Content module 1 control.

Content module 2. *Medical and pharmaceutical commodity science*

Topic 9. *Commodity science analysis of goods that pharmacies have the right to sell*

Topic 10. *Containers for pharmaceutical purpose packaging means and modern package materials in pharmacy*

Topic 11. *Packing and Labeling of drugs*

Topic 12. *Commodity science analysis of sphygmomanometers*

Topic 13. *Commodity science analysis of thermometers*

Topic 14. *Commodity science analysis irrigators and nebulizers*

Content module 2 control.

Semester assessment.

methods:

- *explanatory (informational and reproductive):* multimedia lectures;
- *reproductive:* performance of practical work, including using elements of distance learning (Moodle service), Internet resources;
- *problem-based teaching:* elements of discussions during lectures and classes, discussion of situational tasks on the rational use and conditions of packaging, labeling and storage of medicines, medical products and cosmetics.
- *research:* participation in research work, preparation of theses of reports, preparation of qualification work, participation in Olympiads, independent study of educational and scientific sources, work in the student scientific society of the department;

- *methods of active learning*: TBL-team forms of work – analysis of medical products, cosmetics and medicines in a group, responsibility for the result;
- *interactive learning methods*: work with various sources of information, joint problem solving and analysis.

14. Forms and types of academic achievements supervision:

Types and forms of control:

Progress supervision: the types of control are listed (oral survey, writing test tasks, solving situational (calculation) problems, etc.).

Supervision of content modules: the types of tests are listed (oral survey, preparation of test tasks, solution of situational (calculation) problems, etc.)

Semester control form: semester credit.

Conditions for admission to the supervision of content modules: for admission to the control of content module 1, it is necessary to have a minimum number of points in topics 2-6. In order to be admitted to the control of content module 2, the presence of a minimum number of points for the topics of content module 2 and the results for the control of content module 1 is required.

Conditions for admission to semester supervision: current rating of more than 60 points, absence of unworked absences of practical classes, fulfillment of all requirements stipulated by the work program of the educational component.

15. Evaluation system of the educational component:

The results of 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)
Модуль 1	
Content module 1: General part of quality management. - <i>assessment of topics (2-4) (work in classes 2-4): work in classes (oral survey, writing test tasks, solving situational (calculation) problems);</i> - <i>control of content module 1 (writing test tasks, solving situational (calculation) problems)</i>	52 (52 %)
Content module 2: The applied part of quality management. - <i>assessment of topics (2-3) (work in classes 2-3): work in classes (oral survey, writing test tasks, solving situational (calculation) problems);</i> <i>control of content module 2 (writing test tasks, solving situational (calculation) problems)</i>	48 (48 %)
Semester Supervision of Module 1	100

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:

Academic Integrity Policy. 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 Ukraine". Writing off during the assessment of the success of a higher education student during control measures in practical (seminar) classes, control of content modules and semester credit is prohibited (including with 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 enroll it.

Class attendance policy. A student of higher education is obliged to attend classes ("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 debt. The completion of missed classes by a student of higher education is carried out in accordance with the "Regulations on the completion of missed classes by students and the procedure for eliminating academic differences in the curricula of the National University of Pharmacy" in accordance with the schedule for making up missed classes established by the department. Increasing the rating and liquidating academic debt from the educational component is carried out by the students in accordance

with the procedure specified in the "On the procedure for evaluating the results of studies of students of 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 assessment from the educational component (appeals). Applicants of 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 "Regulations on appealing the results of the semester control of the knowledge of students of higher education of the National University of Pharmacy".

17. Informational and educational and methodological support of the educational component:

<p>The main reading suggestions</p>	<ol style="list-style-type: none"> 1. Pharmaceutical and medical commodity science : workbook. / I. I. Baranova, D. V. Demyanenko, S.V. Breusova, S. N. Kovalenko, S. A. Mamedova. – Kharkiv : NUPh, 2018. – 52 p. 2. Pharmaceutical and medical commodity science : workbook. / I. I. Baranova, D. V. Demyanenko, V. G. Demyanenko S.V. Breusova, S. N. Kovalenko, S. A. Mamedova. – Kharkiv : NUPh, 2018. – 67 p. 3. Pharmaceutical and medical commodity science [Electronic resource] : methodological recommendations for preparation to the final module control [of applicants for higher education specialty "Pharmacy"] / I. I. Baranova [et al.] ; NUPh, Dep. of Commodity Science. - Electronic text data. - Kharkiv : NUPh, 2018. - 24 p. 4. Pharmaceutical and medical commodity science : methodological recommendations for preparation to the final module control of applicants for higher education specialty «Pharmacy» / I. I. Baranova, Yu. O. Bezpala, M. V. Khalavka, S. N. Kovalenko. – Kharkov : NUPh, 2018. – 22 p.
<p>Supplementary reading suggestions for in-depth study of the educational component</p>	<ol style="list-style-type: none"> 1. Khanina N. V. Advantages of sphygmomanometer WS-1011 (NISSEI, JAPAN) / Khanina N. V., Moskalyk N. A., Baranova I. I. // Topical issues of new drugs development: Abstracts of XXVI International Scientific And Practical Conference Of Young Scientists And Student – Kharkiv: NUPh, 2019. – P. 437-438. 2. Khanina N. V. Nomenclature of cuffs for sphygmomanometers of firm LITTLE DOCTOR / Khanina N. V., Baranova I. I. // Topical issues of new drugs development: Abstracts of XXVI International Scientific And Practical Conference Of Young Scientists And Student – Kharkiv: NUPh, 2019. – P. 438-439. 3. Bezpala Yu. O. The main consumer characteristics of ultrasonic nebulizers / Yu. O. Bezpala, I. I. Baranova, O. P. Shmatenko The 10th International Pharmaceutical Conference „Science and Practice 2019” (November 15th, 2019) Kaunas. Lithuania. Lithuanian University of Health Sciences. Faculty of Pharmacy. 2019. P. 940. 4. Research of orthopedic insoles choice depending on material and indicators / D. O. Marchenko, T. V. Diadiun; Sc. s.: I. I. Baranova // Topical issues of new medicines development : Abstracts XXVII of International Scientific And Practical Conference Of Young Scientists And Student (April 8-10, 2020). – Kh.: Publishing Office NUPh, 2020. – P. 385-386. 5. Tarik Dakhli Research of the assortment of medical beds for rehabilitation of patients / Tarik Dakhli, Breusova S. V., Baranova I. I. // Topical issues of new medicines development: матеріали XXVII Міжнародної науково-практичної конференції молодих учених та студентів (8-10 квіт. 2020 р., м. Харків). – Харків: НФаУ, 2020. – С. 391-392. 6. Savelyeva V. Mechanical sphygmomanometers. a step to the past or future / Savelyeva V., Baranova I.I. // Topical issues of new medicines development: матеріали XXVII Міжнародної науково-практичної конференції молодих учених та студентів (8-10 квіт. 2020 р., м. Харків). – Харків: НФаУ, 2020. – С. 390. 7. S. M. Zaporozhska. The study of the product range of modern oral care devices – irrigators / S. M. Zaporozhska, I. I. Baranova, Yu. O. Bezpala, S. V. Breusova, T. V. Dyadyun // Social Pharmacy in Health Care. Kharkiv – 2021. – Vol. 7, No. 2. P.58-66. 8. Diadiun T., Baranova I., Kovalenko S., Yeromenko R., Rybalkin M. / Commodity analysis of compression products for varicose veins // Pharmacia – 2021 – №68(3). P. 607-611. 9. Diadiun T., Baranova I., Musozoda S., Semeniv D., Zaporozhska S. / Commodity analysis of medical products used in adult incontinence // Pharmacia – 2021 – №68(4). P. 805-809.

	<p>10. Study of medical devices for intradermal injections / Grechana A. O., Bezpala Yu. O., Baranova I. I. // II Всеукраїнська науково-практична конференція з міжн. участю "Youth pharmacy science" – Харків : НФаУ, - 2021 – С. 649-650.</p> <p>11. Features of labeling of therapeutic and prophylactic cosmetics in libanon / Sleiman Fida, Bezpala Yu. O., Baranova I. I. // II Всеукраїнська науково-практична конференція з міжн. участю "Youth pharmacy science" – Харків : НФаУ, - 2021 – С. 651-652.</p> <p>12. Study of Commodity Aspects of Compressor Nebulizers in Ukraine Kotvitska, A., Bezpala, Y., Baranova, I., Khushvakhtzoda, Q., Musozoda, S. Pharmakeftikithis link is disabled, 2022, 34(4), p. 156–165.</p>
<p>Current electronic information resources (magazines, websites) for indepth study of the educational component</p>	<p>1. Technical regulations for medical devices. Approved by the Resolution of the Cabinet of Ministers of Ukraine dated 02.10.2013 № 753 (edition dated 17.08.2016) [Electronic resource]. - Access mode: http://zakon5.rada.gov.ua/laws/show/753-2013-%D0%BF.</p> <p>2. Technical regulations for medical devices for in vitro diagnostics. Approved by the Resolution of the Cabinet of Ministers of Ukraine dated 02.10.2013 № 754 (edition dated 17.08.2016) [Electronic resource]. - Access mode: http://zakon2.rada.gov.ua/laws/show/754-2013-%D0%BF.</p> <p>3. Technical regulations for active implantable medical devices. Approved by the Resolution of the Cabinet of Ministers of Ukraine dated 02.10.2013 № 755 (edition dated 17.08.2016) [Electronic resource]. - Access mode: http://zakon3.rada.gov.ua/laws/show/755-2013-%D0%BF</p> <p>4. DSTU EN 980: 2007 Graphic symbols for marking of medical devices [Electronic resource]. - Access mode: http://ksv.do.am/publ/dstu/dstu_en_980_2007/3-1-0-727.</p> <p>5. Technical conditions (TU) [Electronic resource]. - Access mode: http://www.ifdcsms.com.ua/in-dex.php?id=54.</p> <p>6. Classification of drugs on the basis of their equivalence [Electronic resource] / I. Zupanets, V. Usenko, I. Kryachok, K. Kosyachenko, V. Strashny, S. Savych, O. Tarasenko. - Access mode: http://fp.com.ua/articles/klasyfikatsiya-likarskyh-zasobiv-na-pidstavi-yihnoyi-ekvivalentnosti/.</p> <p>7. Legislation of Ukraine [Electronic resource]. - Access mode: http://zakon3.rada.gov.ua/laws.</p> <p>8. Normative-directive documents of the Ministry of Health of Ukraine [Electronic resource]. - Access mode: / http:// mozdocs.kiev.ua</p> <p>9. Regulations on the State Form of Medicines. Approved by the Order of the Ministry of Health of Ukraine 22.07.2009 № 529 (as amended) [Electronic resource]. - Access mode: http://zakon5.rada.gov-ua/laws/show/z1004-09.</p> <p>10. Compendium OnLine [Electronic resource]. - Access mode: http://compendium.com.ua/</p> <p>11. State Register of Medicinal Products of Ukraine [Electronic resource]. - Access mode: http://www.-drlz.com.ua/.</p>
<p>Distance learning system Moodle</p>	<p>https://pharmel.kharkiv.edu/moodle/course/view.php?id=2747</p>

18. Technical and software of the educational component: computers for testing, multimedia device, screen. A set of services for organizing online and distance learning - Google Workspace for Education Standard, a program for organizing video conferences ZOOM, modular object-oriented dynamic learning environment MOODLE 3.9.8.