

**SYLLABUS OF THE EDUCATIONAL COMPONENT**

**Nutriciology**

**for higher education students of the 3<sup>rd</sup> year of full-time education (2023/2024)  
((4.10д) years of age for foreign citizens studying English)  
educational program «Pharmacy»  
specialty «226 Pharmacy, industrial pharmacy»  
field of knowledge «22 Healthcare»  
the second (master's) level of higher education**

**TEACHERS**



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**5. Consultations:** *online, take place every Monday from 12.05 to 12.50*

**6. Brief summary of the educational component:** Nutriciology is discipline of the first bachelor's level of specialty 226 «Pharmacy» of the educational-professional program «Pharmacy».

**7. The purpose statement of studying the educational component:** the formation of a system of theoretical knowledge, practical skills and abilities of higher education on the organization of nutrition of healthy and sick people at different ages of life through the application of modern scientific provisions of nutrition and assessment of nutritional composition of foods used for prevention and treatment.

**Course format:** conducting lectures and practical classes for optimal mastering of topics.

**8. Competences in accordance with the educational program:****Soft-skills / General competences (GC):**

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

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

PC 16. Ability to organize and conduct the procurement of medicinal plant raw materials in accordance with the rules of Good Practice of Cultivation and Collection of Raw Materials of Plant Origin (GACP), as a guarantee of the quality of medicinal plant raw materials and medications based on it. Ability to predict and calculate ways to solve the problem of conservation and protection of thickets of wild medicinal plants, in accordance with current legislation.

PC 20. Ability to develop methods for quality control of medications, including active pharmaceutical ingredients, medicinal plant raw materials and excipients using physical, chemical, physicochemical, biological, microbiological, pharmacotechnological and pharmacoorganoleptic control methods.

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

PLO 7. Collect the necessary information on the development and production of medicinal products, using professional literature, patents, databases and other sources; systematize, analyze and evaluate it, in particular, using statistical analysis.

PLO 28. To organize and conduct rational procurement of medicinal plant raw materials. To develop and implement measures for the protection, reproduction and rational use of wild species of medicinal plants.

PLO 31. To carry out all types of quality control of medicines; to draw up quality certificates for the batch of the medicinal product and the certificate of analysis, taking into account the requirements of current regulations, the State Pharmacopoeia of Ukraine and the results of quality control. To develop specifications and methods of quality control in accordance with the requirements of the current State Pharmacopoeia of Ukraine.

PLO 32. To determine the main organoleptic, physical, chemical, physicochemical and pharmacotechnological indicators of medicines, to substantiate and choose methods of their standardization, to carry out statistical processing of results in accordance with the requirements of the current State Pharmacopoeia of Ukraine.

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

**11. Prerequisites of the discipline:** "Normal and pathological human physiology", "Organic chemistry", "Biological chemistry", "Pharmacognosy with the basics of resource science"

**12. The volume of the educational component:** 4.0 ECTS credits (120 h): 8 hours - lectures, 32 hours - practical classes, 80 hours of independent work.

**13. Organization of training:**

**Teaching format of the educational component:** lectures, practical classes.

**Content of the educational component:**

**Content module 1. *Nutrients in foods. diet, nutritional status, dietary supplements.***

*Topic 1. Nutrition: subject, purpose and objectives*

*Topic 2. Nutrition: modern approaches, principles, recommendations*

*Topic 3. Macro- and micronutrients*

*Topic 4. Diet, general characteristics of diets*

*Topic 5 Non-traditional (alternative) diets*

*Topic 6 Nutritional status*

*Topic 7. Dietary supplements. food products for special dietary consumption Ingredients of DS*

**Content module 2. *Nutritional correction of diseases***

*Topic 9. Nutritional correction for food intolerance and food allergies.*

*Topic 10. Nutritional correction of diabetes.*

*Topic 11. Nutritional correction of obesity and diseases of the gastrointestinal tract.*

*Topic 12. Nutritional correction of diseases of the cardiovascular system.*

*Topic 13. Nutritional correction of urinary system's diseases.*

*Topic 14. Nutritional correction of musculoskeletal system's diseases.*

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

***Forms and types of academic achievements supervision***

*Current control* of theoretical and practical knowledge in the form of an oral, written and test survey using standardized methods for diagnosing knowledge, abilities and skills is carried out at each laboratory session in accordance with the specific goals of the topic and during the individual work of the teacher for topics that are not included in the structure of the lesson and are developed by the student of higher education independently.

*Control of content modules* - control of theoretical knowledge in the form of an oral, written and test survey of applicants for higher education, as well as practical skills in determining the identity and benignity of MPM. Control refers to knowledge and skills, both acquired in classes, and objects and topics developed independently by students of higher education.

When *studying the educational component* «Nutriciology», students of higher education take a semester exam. The exam on pharmacognosy with the basics of resource science is conducted in written form during the exam session, according to the schedule.

*Form of control* - semester credit.

**15. Evaluation system of 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 assessment	Maximum number of points (% of the number of points per module - for content modules)
Модуль 1	
Content module 1: • assessment of topics (1-7) (work in classes 1-7): work in classes (oral survey, writing input controls, solving logical problems); • control of content module 1 (solving theoretical, practical and logical tasks)	50 (50 %)
Content module 2: • assessment of topics (8-12) (work in classes 8-12): work in classes (oral survey, writing input controls, solving logical problems); • control of content module 2 (solving theoretical, practical and logical tasks)	50 (50 %)
Semester control of the module	100

**The independent work of students of higher education is evaluated during the current control and during the control of the content module**

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

*The policy of the educational component* is determined by the requirements of the department to the applicant for higher education when studying the educational component regarding academic integrity, regarding attending classes, regarding deadlines, working out, increasing the rating, liquidating academic debts, regarding contesting the evaluation of the educational component (appeals), etc. In this point, the Regulations and other normative documents of the National University of Pharmacy are specified, in accordance with which requirements are set for the applicant for higher education when studying the educational component and the policy of the department is formed.

*For example, Academic Integrity Policy.* It is based on the principles of academic integrity stated in the Provisions of the document "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 (Provisions of the document "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 Provisions of the document "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 Provisions of the document "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 Provisions of the document "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>	<ol style="list-style-type: none"> <li>1. Lecture notes on nutriciology / Попова Н.В., Очкур А. В., Казаков Г.П., Ковалёв С.В., Алфёрова Д.А. X.: НФаУ,2018. 120 с.</li> <li>2. Dietary Supplements Compendium: 1st edition. – The United States Pharmacopeial Convention. – Rockville, MD. – 2009. – 1836 p.</li> <li>3. Dietary Supplements of Plant Origin. A nutrition and health approach / Edited by M. Maffei. – Taylor &amp; Fransis Ltd. – London, New York. – 2003. – 242 p.</li> <li>4. Food Lipids. Chemistry, nutrition, and biotechnology: 2nd edition, rev. and exp. / Edited by C.C. Akoh and D.B. Min. – Marcel Deccer, Inc. - New York. – 2002. – 1014 p.</li> <li>5. Herbal Products. Toxicology and clinical pharmacology: 2nd edition. / Edited by T.S. Tracy and R.L. Kingston. – Humana Press. – Totowa, New Jersey. – 2007. – 300 p.</li> </ol>
<b>Supplementary reading suggestions for in-depth study of the educational component</b>	<ol style="list-style-type: none"> <li>1. Phytochemicals as bioactive agents / Edited by W.R. Bidlack, S.T. Omaye, M.S. Meskin, D.K.W. Topham. - Boca Raton, Florida. - 2000. – 296 p.</li> <li>2. The Oxford Book of Health Foods. A comprehensive guide to natural remedies / J.G. Vaughan, P.A. Judd. – Oxford University Press. - New York. – 2006. – 223 p.</li> </ol>
<b>Current electronic information resources (magazines, websites) for in-depth study of the educational component</b>	<ol style="list-style-type: none"> <li>1. Website of the Department of Pharmacognosy and Nutriciology – <a href="http://www.cnc.nuph.edu.ua">www.cnc.nuph.edu.ua</a></li> <li>2. Website of the NUPh library – <a href="http://lib.nuph.edu.ua">http://lib.nuph.edu.ua</a></li> <li>3. Electronic archive of the NUPh – <a href="http://dspace.nuph.edu.ua">http://dspace.nuph.edu.ua</a></li> <li>4. Center for Distance Technologies of the National Academy of Sciences of Ukraine – <a href="http://pharmel.kharkiv.edu">pharmel.kharkiv.edu</a></li> <li>5. NUPh. Online tests – <a href="http://tests.nuph.edu.ua">http://tests.nuph.edu.ua</a></li> <li>6. Vernadsky National Library of Ukraine – <a href="http://www.nbu.gov.ua">http://www.nbu.gov.ua</a></li> <li>7. V.G. Korolenko Kharkiv State Scientific Library – <a href="http://korolenko.kharkov.com">http://korolenko.kharkov.com</a></li> </ol>
<b>Distance learning system Moodle</b>	<p><a href="https://pharmel.kharkiv.edu/moodle/course/view.php?id=2708">https://pharmel.kharkiv.edu/moodle/course/view.php?id=2708</a></p> <p><a href="https://pharmel.kharkiv.edu/moodle/course/view.php?id=5187">https://pharmel.kharkiv.edu/moodle/course/view.php?id=5187</a></p>

**18. Technical support and software of the educational component:** computers for testing, multimedia device, screen.