

SYLLABUS OF THE EDUCATIONAL COMPONENT

**BASICS OF RATIONAL NUTRITION**

**for students of higher education, 5th year of full-time education
educational program «Pharmacy»
specialty «226 Pharmacy, industrial pharmacy»
field of knowledge «22 Health care»
the second (master's) level of higher education**

TEACHERS**Information about the teacher**

SKREBTSOVA associate professor of the
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1. Name of higher education institution and unit: National University of Pharmacy, Department of Pharmacognosy and Nutriciology.

2. Address of the department: street Valentinovskaya, 4 (4th floor of the chemical building), Kharkiv, phone: +38(0572)67-93-63.

3. Web-site of the department: <https://cnc.nuph.edu.ua/>

4. Consultations: *online, take place every Wednesday from 12.05 to 12.50*

5. Abstract of the educational component: Basics of rational nutrition is an selective educational component for students of higher education specialty 226 Pharmacy, industrial pharmacy, educational program Pharmacy. The selective educational component " Basics of rational nutrition " contains a set of information necessary for expanding the theoretical training and practical activities of the future specialist, allows you to teach the correct attitude to nutrition and health, reveals the importance and role of nutrition in the life processes of the human body.

6. Purpose of teaching the educational component: formation of a system of theoretical knowledge, practical skills and skills of higher education students regarding the organization of the nutrition system of a healthy and sick person at different age stages of his life through the application of modern scientific provisions of Nutriciology and assessment of the nutritional composition of food products used for prevention and population treatment.

7. Competences in accordance with the educational program:

Soft- skills / General competences (GC):

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

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

PC 16. Ability to organize and carry out the procurement of medicinal plant raw materials in accordance with the rules of the 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 medicines based on them. The ability to predict and calculate ways to solve the problem of preservation and protection of thickets of wild medicinal plants, in accordance with current legislation.

PC 20. Ability to develop methods of quality control of medicinal products, including active pharmaceutical ingredients, medicinal plant raw materials and auxiliary substances using physical, chemical, physico-chemical, biological, microbiological, pharmacotechnological and pharmaco-organoleptic control methods.

8. Programme learning outcomes (PLO):

PLO 7. To carry out professional activities using creative methods and approaches.

PLO 28. Organize and carry out rational procurement of medicinal plant raw materials. Develop and implement measures for the protection, reproduction and rational use of wild species of medicinal plants.

PLO 31. Carry out all types of quality control of medicinal products; draw up quality certificates for a series of medicinal products and a certificate of analysis, taking into account the requirements of current regulatory documents, the State Pharmacopoeia of Ukraine and the results of quality control. Develop specifications and quality control methods in accordance with the requirements of the current State Pharmacopoeia of Ukraine.

PLO 32. Determine the main organoleptic, physical, chemical, physicochemical and pharmacotechnological indicators of medicinal products, justify and choose methods of their standardization, carry out statistical processing of the results in accordance with the requirements of the current State Pharmacopoeia of Ukraine.

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

10. Prerequisites of the educational component: is based on the knowledge obtained by students of higher education during the study of normal and pathological human physiology, organic chemistry, biological chemistry.

11. The scope of the educational component: 90 hours 3.0 ECTS credits: 6 hours - lectures, 24 hours - practical classes, 60 hours of independent work.

12. Organisation of the teaching process:

Teaching methods:

- *explanatory (informational and reproductive) method:* Lecture-based learning – lectures, video materials;
- *reproductive method:* traditional practical classes;
- *problem-based teaching:* Brainstorming - method of "brainstorming"; Case-based learning - method of cases;
- *partial search method:* Game-based learning – game methods of learning (business games);
- *research method:* Research-based learning – participation in research work, preparation of theses of reports at conferences, scientific articles

The content of the educational component:

Content module 1. Nutritional foundations of rational and medical nutrition

Topic 1. General concepts of energy metabolism.

Topic 2. The main provisions of rational nutrition.

Topic 3. The concept of medical nutrition, its types. Alternative types of food.

Topic 4. The concept of food poisoning and its prevention

Topic 5. Basics of nutrition science

Content module 2. Evaluation of the nutritional composition of food products that form the basis of medical nutrition, rational nutrition of people of different sexes, ages and types of activities

Topic 6. Nutrient composition of food products in various nosological forms of diseases

Topic 7. Basics of rational nutrition for pregnant women and women who have breastfed children

Topic 8. Basics of rational nutrition for children and adolescents

Topic 9. Basics of rational nutrition for the elderly

Topic 10. Basics of rational nutrition for athletes

Topic 11. Peculiarities of nutrition of workers in production with harmful working conditions

Organization of independent work:

Independent work includes the study of topics 1, 4 of the educational component, which were not included in classroom classes, and the performance of tasks on these topics in order to consolidate the theoretical material.

13. Types and forms of control:

Types and forms of control:

Current control:

Control of knowledge at each lesson: oral survey, preparation of test tasks.

Control of content modules: oral survey, preparation of test tasks.

Conditions for admission to control of content modules: the presence of a minimum number of points for taking the content module.

Semester control:

Form of control - semester credit.

Conditions for admission to the semester control: current rating of more than 60 points, availability of the minimum number of points for the control of content modules 1 and 2, absence of unworked passes of practical classes, fulfillment of all requirements stipulated by the work program of the educational component.

14. The assessment system for the educational component:*Assessment of the acquisition of topics of the educational component during classes:*

<i>The number of the topic (lesson) of the educational component</i>	<i>The maximum number of points by topic (lesson)</i>	<i>Distribution of the maximum number of points per topic (lesson) by type of work</i>	<i>Types of work for which the applicant receives points</i>
Content module 1			
Topic 1. <i>(topic for independent study)</i>	2	2	solving tasks for independent work
Topic 2.	5	2	testing
		3	oral answer
Topic 3.	3	1	testing
		2	усна відповідь
Topic 4. <i>(topic for independent study)</i>	2	2	solving tasks for independent work
Topic 5.	3	1	testing
		2	oral answer
Total points for the content module 1:		15	
Content module 2			
Topic 6.	5	2	testing
		3	oral answer
Topic 7.	2	1	testing
		1	oral answer
Topic 8.	2	1	testing
		1	oral answer
Topic 9.	2	1	testing
		1	oral answer
Topic 10.	2	1	testing
		1	oral answer
Topic 11.	2	1	testing
		1	oral answer
Total points for the content module 2:		15	
Total points for the module:		30	

Instead of performing types of work on any topic of the educational component, the following types of work of a student of higher education may be counted:

- participation in workshops, forums, conferences, seminars, webinars on the topic of the educational component (with the preparation of essays, abstracts of reports, information messages, etc., which is confirmed by the program of the event, or abstracts of reports, or a corresponding certificate);

- participation in research and applied research on the topic of the educational component (in the development of questionnaire forms, conducting experimental studies, processing research results, preparing a report, presenting the results, etc., which is confirmed by the demonstration of relevant materials).

Evaluation of winners by types of work during classes:

<i>Types of work, for which the acquirer receives points</i>	<i>Maximum number of points</i>
testing	11
answers to theoretical questions	15
solving tasks for independent work	4
<i>Total points:</i>	<i>30</i>

Assessment during control of content modules:

<i>Types of work, for which the acquirer receives points</i>	<i>Distribution of the maximum number of points for control of the content module by types of works</i>	<i>The maximum number of points for control of the content module</i>
<i>Content module 1</i>		
testing	20	35
answers to theoretical questions	15	
<i>Content module 2</i>		
testing	20	35
answers to theoretical questions	15	
<i>Total points for control of content modules:</i>		<i>70</i>

Evaluation of independent work of the student of education:

during the current control: 4 points: 2 points - solving tasks for independent work (topic 1), 2 points - solving tasks for independent work (topic 4).

during content module 1 control: tickets for content module 1 include theoretical questions and test tasks from topics 1 and 4.

during content module 2 control: tickets for content module 2 include test tasks on topics 6-11, which were not included in the classroom classes.

Evaluation scale of the semester credit:

When studying the educational component, several assessment scales are used: a 100-point scale, an undifferentiated ("passed", "not passed") two-point scale and the ECTS rating scale. The results are converted from one scale to another according to the table.

Total points on a 100-point scale	ECTS scale	Evaluation on a non-differentiated scale
90-100	A	passed
82-89	B	
74-81	C	
64-73	D	
60-63	E	
35-59	FX	not passed
1-34	F	

15. Educational component policies:

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 Pharmacy". Writing off during the assessment of the success of a higher education applicant during control measures in practical (seminar, laboratory) classes, control of content modules and the semester exam 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 (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 debt. The completion of missed classes by a student of higher education is carried out in accordance with the POL "Regulations on the completion of missed classes by students and the procedure for the elimination of 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 POL "On the procedure for evaluating the results of training 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 types 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 POL "Regulations on appealing the results of the semester control of the knowledge of students of higher education at the National University of Pharmacy".

Policy on the recognition of learning outcomes obtained through non-formal and/or informal education by higher education students. Applicants of higher education have the right to recognition of learning outcomes acquired in informal and informal education in accordance with the POL "On the Procedure for Recognition of Learning Outcomes Acquired through Non-Formal and/or Informal Education by Applicants of Higher Education at the National University of Pharmacy".

As part of the academic freedom of the teacher, instead of performing types of work on the subject of the educational component, it is possible to enroll in the non-formal education of a student of higher education.

16. Information and methodological support of the educational component:

Required reading	<ol style="list-style-type: none"> 1. Sultaniyazovich Y. M., Shamshaddinovna A. Z., Alisherovna S. G. Definition of a Rational Diet Woman's Nutrition during Pregnancy. <i>World Bulletin of Public Health</i>. 2023. № 18. P. 76-81. 2. Monte C. M. G., Giugliani E. R. J. Recommendations for the complementary feeding of the breastfed child. <i>Jornal de pediatria</i>. 2004. № 80. P. s131-s141. 3. Nutrition-related health behaviours and prevalence of overweight and obesity among Polish children and adolescents / Wojtyla-Buciora P. et al. <i>Annals of Agricultural and Environmental Medicine</i>. 2013. № 20 (2). 4. Rational nutrition of modern human / Lupu L. D. M. et al. 4th International multidisciplinary scientific conference on social sciences and arts sgeom. 2017. P. 573-578. 5. Organization Of Rational Nutrition of Athletes in Training and Competitive Activities // Saporbaevna R. R. et al. <i>Specialusis Ugdymas</i>. 2022. № 2 (43). P. 3566-3568.
Additional literature for in-depth study of the educational component	<ol style="list-style-type: none"> 1. Early breastfeeding experiences of adolescent mothers: a qualitative prospective study / Smith P. H. et al. <i>International breastfeeding journal</i>. 2012. № 7. P. 1-14. 2. Pomohaibo K., Harmanpreet S. The role of the family, educational institutions and primary health care in the organization of rational nutrition and the prevention of overweight in children and adolescents. <i>Громадське здоров'я в Україні: проблеми та способи їх вирішення</i>. 2022. P. 219. 3. Assessment of nutritional habits and preferences among secondary school students / Duma-Kocan P. et al. <i>Roczniki Państwowego Zakładu Higieny</i>. 2017. № 68 (1). 4. Important determinants to take into account to optimize protein nutrition in the elderly: solutions to a complex equation / Dardevet D. et al. <i>Proceedings of the Nutrition Society</i>. 2021. № 80 (2). P. 207-220.
Current electronic information resources (magazines, websites) for in-	<ol style="list-style-type: none"> 1. Website of the Department of Pharmacognosy and Nutriciology - https://cnc.nuph.edu.ua/ 2. Scientific library of the NUPh - http://lib.nuph.edu.ua 3. Electronic archive of the NUPh - http://dspace.nuph.edu.ua 4. Center for remote technologies of the NUPh – pharmel.kharkiv.edu.

depth study of the educational component Up-to-date electronic information resources (journals, websites, etc.) for in-depth study of the educational component	5. Vernadsky National Library of Ukraine - http://www.nbu.gov.ua 6. V.G. Korolenko Kharkiv State Scientific Library - http://korolenko.kharkov.com .
Moodle distance learning system	https://pharmel.kharkiv.edu/moodle/course/view.php?id=5091

17. Technical support and software of the educational component:

computers for testing, multimedia device, screen.

Software: Microsoft Word, Excel, Power Point, Acrobat rider, Google Workspace for Education Standard, ZOOM, MOODLE.