

**Odesa National Medical University**  
**Pharmaceutical Faculty**  
**Department of Drug Technology**

**Syllabus of the course**  
**«Technology of Medicinal Cosmetics»**

<b>Scope</b>	The total number of hours is 90; number of ECTS credits is 3.
<b>Term, year</b>	IX term, V year
<b>Days, time, place</b>	In accordance with the schedule of the Department of Drug Technology
<b>Teachers</b>	Borisyuk Irina Yurievna Doctor of Pharmaceutical Sciences Fizor Natalya Seliverstovna Candidate of Pharmaceutical Sciences, Associate Professor Sushchuk Natalya Anatolyevna Candidate of Pharmaceutical Sciences, Associate Professor
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<b>Workplace</b>	Department of Drug Technology, room 124, room 123, room 120
<b>Consultations</b>	Online consultations: remotely on the platform Microsoft Teams <a href="https://www.microsoft.com/uk-ua/education/products/teams">https://www.microsoft.com/uk-ua/education/products/teams</a>

**COMMUNICATION**

Scheduled classroom communication. Other types of communication: scheduled consultation according to the “Face to face” principle, remotely on the Microsoft Teams platform and using the lecturer's e-mail. The solution of “business issues” is possible by the specified phone number.

**ANNOTATION OF THE COURSE**

The **subject** of the discipline “Technology of medicinal cosmetics” is to teach students the theoretical foundations of cosmetic, medical and cosmetic care of the skin and cutaneous appendages, the rules for the cosmetic procedures application, the use of cosmetic preparations depending on the type of skin and cosmetic imperfections; to compose and substantiate the recipe of perfumery and cosmetic products; to choose and justify a rational method for the production of perfumery and cosmetic products; practical skills in the manufacture of cosmetics, control of its quality.

**Course prerequisites:** the discipline belongs to compulsory disciplines and is based on the knowledge gained during the study of general disciplines: Latin, botany, analytical chemistry, pharmaceutical technology of drugs, industrial technology of drugs, pharmacognosy, pharmacology, pharmaceutical chemistry, toxicological chemistry.

**Postrequisites of the course:** knowledge gained at the end of the study of the discipline is necessary for studying such disciplines as biopharmacy, pharmaceutical biotechnology.

The **purpose** of the course is mastering students of the ability to act in a socially responsible and civic conscious way, to apply knowledge in practical situations, to strive to preserve the environment, the ability to abstract thinking, analysis and synthesis; the ability to learn and be up-to-date trained, to have the skills using information and communication technologies, the ability to assess and ensure the quality of work performed.

**Objectives of the discipline:**

- 1) to know and use the normative and legal acts of Ukraine and recommendations for medicinal cosmetics.
- 2) to know how to organize the production activities of pharmacies for the manufacture and sale of medicinal cosmetics;
- 3) to have knowledge of how to ensure proper storage of cosmetic forms and other decorative cosmetics.
- 4) to have the ability to provide health education among the population in order to prevent common skin pathologies, care for skin appendages and the principles of their choice.

**Expected results:**

As a result of studying the academic discipline, the applicant for education **must know:**

- 1) the main stages of cosmetology development;
- 2) established rules for the manufacture and sale of medicinal cosmetics;
- 3) anatomical and physiological features of the skin and its appendages;
- 4) clinical characteristics of the main skin types and methods of their determination;
- 5) clinical characteristics of the skin by the degree of elasticity, by the type of relief, by the level of blood supply and methods of their determination;
- 6) cosmetological aspects of morphology and physiology of hair, methods of determining the type of hair,
- 7) terminology and classification of cosmetic, medical cosmetic products, medical cosmetic and cosmetic skin care;
- 8) clinical characteristics of pathologies of the skin and its appendages;
- 9) classification and characteristics of active, medicinal and auxiliary substances used in cosmetology;
- 10) medicinal plants and biologically active substances used in cosmetology;
- 11) characteristics of beekeeping products used in cosmetology;
- 12) classification, characteristics, technology features, quality control of cosmetic forms: creams, gels, cosmetic milk, lotions, shampoos, powders and other decorative cosmetics;
- 13) the recipe of cosmetic preparations for the care of normal, oily, dry, mixed skin and the principles of their selection;

- 14) the recipe of medical and cosmetic preparations for the treatment of skin pathologies; the recipe of cosmetic preparations for the care of skin appendages and the principles of their selection;
- 15) the recipe of medical and cosmetic preparations for the treatment of pathologies of hair and nails;
- 16) the history of the aromology development;
- 17) the recipe of aromatic compositions for the care and treatment of the skin and its appendages;
- 18) features of the aroma compositions technology;
- 19) the recipe of perfumes;
- 20) innovative methods of cosmetic imperfections treatment.

**be able to:**

- 1) determine the main clinical characteristics of the skin: skin type; the degree of skin elasticity, the type of relief, the type of skin and the level of blood supply;
- 2) to produce cosmetic forms: creams, gels, pastes, ointments, cosmetic milk, lotions, shampoos, powders, lipsticks, etc. and control their quality;
- 3) to select medicinal, active and auxiliary components in the manufacture of cosmetic forms, taking into account the main clinical indicators of the skin;
- 4) to apply the appropriate recipe and cosmetic care depending on the type of skin and cosmetic imperfections;
- 5) to apply the recipe and medical and cosmetic care, depending on the type of hair and its pathologies;
- 6) to make aromatic compositions and select their composition depending on the cosmetic, as well as medical and cosmetic purposes.

**master:**

- 1) regulations, including mastering the issues of state regulation of the production and sale of perfumery and cosmetic products.
- 2) basic approaches to the analysis of cosmetic recipes that provide hygienic, therapeutic and prophylactic and decorative action;
- 3) predicting prospective directions based on computer methods for the development of new cosmetics;
- 4) compilation and implementation of rational technology for the manufacture and quality control of cosmetics in accordance with the requirements (NTD), knowledge of ways and methods to improve the efficiency of natural resources for the creation of new tools;
- 5) study of the market of medicinal cosmetics, knowledge for the formation of scientific worldview and modern thinking in the field of cosmetology
- 6) knowledge and skills to ensure the quality of cosmetics.

## **DESCRIPTION OF THE COURSE**

**The volume of the module:** total number of hours is 90 which includes 10 hours of lectures, practical classes - 30 hours, independent work - 50 hours. In addition to the lectures and practical classes, individual and group consultations are provided.

**Content of the discipline:**

**Topic 1.** Cosmetology as a branch of natural science and a component of the health care system.

**Topic 2.** The main stages of the development of cosmetology and aromology.

**Topic 3.** Cosmetic aspects of morphology and physiology of the skin. Permeability.

**Topic 4.** State regulation of production and sale of perfumery and cosmetic products. Sanitary and hygienic examination of the PQI. Certification.

**Topic 5.** Biologically active ingredients, medicinal and auxiliary substances in the composition of cosmetics.

**Topic 6.** Container and packaging of perfumery and cosmetic products.

**Topic 7.** Basic principles of cosmetics application.

**Topic 8.** Cosmetic preparations of liquid form. Lotions. Tonics.

**Topic 9.** Cosmetic preparations with foam detergents purposes.

**Topic 10.** Cosmetics for the oral cavity care.

**Topic 11.** Cosmetic creams.

**Topic 12.** Cosmetic gels.

**Topic 13.** Cosmetic deodorizing products.

**Topic 14.** Decorative cosmetics for skin care.

**Topic 15.** Decorative cosmetics for hair and nails.

**Topic 16.** Perfumery.

**Topic 17.** Cosmetics for special purposes.

**List of recommended literature:**

**a) main:**

1. Державна фармакопея України: в 3 т. / ДП “Український науковий фармакопейний центр якості лікарських засобів”. – 2-е вид. – Харків : Державне підприємство “ Український науковий фармакопейний центр якості лікарських засобів ”, 2015.

2. Посилкіна О. В., Котлярова В. Г., Чечетка О. В. Методичні рекомендації щодо оптимізації асортименту лікарських косметичних засобів в аптечних закладах : наук.-метод. рек. Харків : НФаУ, 2019. 31 с.

3. Технологія косметичних засобів : підручник для студ. вищ. навч. закладів / О. Г. Башура, О. І. Тихонов, В. В. Россіхін [та ін.] ; за ред. О. Г. Башури і О. І. Тихонова. — Х. : НФаУ ; Оригінал, 2017. — 552 с.

4. Фармацевтична енциклопедія / голова ред. ради В. П. Черних. К.: Моріон, 2016. URL: [www.pharmencyclopedia.com.ua](http://www.pharmencyclopedia.com.ua)

5. Технологія лікувально-косметичних засобів: навчальний посібник / упоряд.: Борисюк І. Ю., Фізор Н. С., Валіводзь І. П., Акішева А. С.. Одеса, ОНМедУ, 2020.-52 с.

**б) additional:**

1. Гіалуронова кислота: біосинтез та використання / І. В. Лич, А. О. Угрин, І. М. Волошина // Український біофармацевтичний журнал. - 2019. - № 2. - С. 6-13.

2. Дедишина Л. Космецевтика в аптеці: престижно та прибутково. Фармацевт Практик. 2015. № 12. С. 28-29

3. Чечотка О. В., Котлярова В. Г. Дослідження правил викладки лікувальнокосметичних засобів у аптечних закладах України. Формування Національної лікарської політики за умов впровадження медичного страхування: питання освіти, теорії та практики : матер. IV Всеукр. наук.-практ. конф., м. Харків, 15 берез. 2017 р. С. 243–244.

4. Маркетинг у фармації та парфумерно-косметичній галузі: навчально-методичний посібник для самостійної роботи студентів фармацевтичного факультету спеціальності «Технології парфумерно-косметичних засобів», / Н.О. Ткаченко., В.О. Демченко, Н.М. Червоненко, Т.П.Зарічна. - Запоріжжя: ЗДМУ, 2016. - 100 с.

**c) informational sources:**

1. Офіційний сайт Міністерства охорони здоров'я України: [www.moz.gov.ua](http://www.moz.gov.ua).
2. Компендиум: лекарственные препараты: – [Електроний ресурс]. – Режим доступу: <http://compendium.com.ua/>.
3. Щотижневик Аптека: <https://www.apteka.ua/>.

## **EVALUATION**

Various forms of control of classes in a specific academic discipline (oral, written, combined, testing, practical skills, etc.) are used at the university. In a *practical (laboratory) lesson*, students should be interviewed at least once every 2-3 practical (laboratory) classes (no more than 75% of students), and in a seminar - at least once every 3-4 classes (no more than 50% of students). At the end of the term (cycle), the number of students' grades in a group on average should be the same.

### **Assessment criteria**

Various forms of control of classes in a specific academic discipline (oral, written, combined, testing, practical skills, etc.) are used at the university. The results of students' academic performance are presented in the form of an assessment on the national scale, 200-point and ECTS scale and have standardized generalized criteria for assessing knowledge: national scale: - the mark "excellent" is given to a student who systematically worked during the term, showed versatile and deep knowledge of the program material during the exam, is able to successfully complete the tasks provided for by the program, has mastered the content of the main and additional literature, has realized the interconnection of individual sections of the discipline, their importance for the future profession, discovered creativity in understanding and using educational and program material, showed the ability to independently update and replenish knowledge; level of competence - high (creative) - the mark "good" is given to a student who has discovered complete knowledge of the educational and program material, successfully fulfills the tasks provided for by the program, has mastered the basic literature recommended by the program, has shown a sufficient level of knowledge in the discipline and is capable of independently updating them and updates in the course of further training and professional activities; level of competence - sufficient (constructively variable) - the mark "satisfactory" is given to a student

who has discovered knowledge of the basic educational and program material in the amount necessary for further study and subsequent work in the profession, copes with the tasks provided for by the program, made some mistakes in answers on the exam and when performing exam tasks, but has the necessary knowledge to overcome the mistakes made under the guidance of a scientific and pedagogical worker; level of competence - average (reproductive) - the mark "unsatisfactory" is given to a student who did not reveal sufficient knowledge of the main educational and program material, made fundamental mistakes in performing the tasks provided for in the program, cannot use knowledge in further training without the help of a teacher, could not master skills independent work; the level of competence is low (receptive-productive).

At the end of the study of the discipline, the current academic performance is calculated - the average current score (the arithmetic mean of all current grades on the traditional scale, rounded to two decimal places).

At the last practical lesson, the teacher is obliged to provide information to the students about the results of their current academic performance and academic debts (if any), as well as when completing the curriculum for the discipline, fill out the student's record book. To increase the average score in the discipline, the current grades "3" or "4" are not reexamined.

At the end of each lesson, the teacher must announce to the students their marks, submit the corresponding data in the **Students' Attendance Register**.

At the end of the study of the discipline, the current performance is calculated - the average current score (the arithmetic mean of all current grades on the traditional scale, rounded to two decimal places).

*Independent work* (fulfillment of individual tasks and their defense during practical training) - the assessment is carried out according to the traditional 4-point scale, the term of completion is during the course of the discipline.

*Final control (oral)*: the form of final control in the discipline is differential credit. No bonus points will be awarded. Differential credit is set in the last lesson in the discipline based on the results of the final interview with the student's obligatory performance of all types of work stipulated by the work curriculum and evaluated for current educational activities on average not less than 3.00. The grade received for the answer on the differential test and the average current performance during the study of the discipline are used to calculate the arithmetic mean, which is the overall grade for the discipline.

In the student's record book, the teacher enters the grade for the discipline on the traditional and 200-point scale. The conversion of the traditional grade in the discipline into a 200-point grade is carried out by the information and computing center of the university **by the «Contingent» program according to the formula: average grade (current / subject) x 40**

National grade	Points
«5»	185-200
«4»	151-184

«3»	120-150
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The marks "good" and "satisfactory", received by the student when taking the final control (exam, differential test), are not changed. A student who was admitted to the exam or differential credit and was not present without respectful reason is considered to have received an unsatisfactory grade.

### **COURSE POLICY:**

**Policy regarding deadlines and retakes.** The final control is carried out in the audience on the penultimate week. In the absence or low result, the final written control is revised at a time in the last week on the day of the scheduled consultation (Thursday 15.00-16.00). Failure to comply with the deadline and retake policy the student will not pass the test.

**Academic Virtue Policy.** The course involves writing abstracts (Independent work), which will be tested for academic virtue (according to the Regulations on the Commission on Academic Virtue of the Odesa National Medical University).

**Policy on attendance and late arrivals:** attending lectures and practical classes is mandatory, delays are not desirable. Points for attending classes are not awarded. Disease confirmed by a doctor's certificate (hospital) is considered a respectful reason for absence at the class.

**Mobile devices:** with the permission of the teacher, it is allowed to use a smartphone, tablet or other device for storing and processing information.

**Behaviour** in the classroom or remotely on the Microsoft Teams platform: active, business and creative atmosphere.