MINISTRY OF HEALTH OF UKRAINE

ODESSA NATIONAL MEDICAL UNIVERSITY

Department of Pharmaceutical Chemistry and Drug Technology

APPROVED

Vice-rector for scientific and pedagogical work

_____ Eduard BURYACHKIVSKY

September 1st, 2025

WORKING PROGRAM IN THE DISCIPLINE «TECHNOLOGY OF MEDICINAL COSMETIC PRODUCTS»

Level of higher education: second (master's degree)

Area of Knowledge: 22 «Health care»

Specialty: 226 «Pharmacy, industrial pharmacy»

Specialization: 226.01 «Pharmacy»

Educational and professional program: Pharmacy, industrial pharmacy

2025

The work program is based on the educational and professional program "Pharmacy, Industrial Pharmacy" for the training of specialists of the second (master's) level of higher education in the specialty 226 "Pharmacy, Industrial Pharmacy" of the field of knowledge 22 "Health Care", approved by the Academic Council of ONMedU (protocol No. 10 dated June 27, 2024).

Developers:
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The work program was approved at the meeting of the Department of Pharmaceutical Chemistry and Drug Technology
Protocol No. 1 dated 08/29/2025.

Head of Department _____ Volodymyr GELMBOLDT

Agreed with the EPP guarantor _____ Liana UNHURIAN

Approved by the subject cycle methodical commission for pharmaceutical disciplines of ONMedU
Protocol No. 1 dated 08/29/2025

Head of the subject cycle methodical commission for pharmaceutical disciplines of ONMedU

_____ Natalia FIZOR

Reviewed and approved at the department meeting _____
Protocol No ___ from "___" _____ 20__ .

Head of the department _____ Volodymyr GELMBOLDT

Reviewed and approved at the department meeting _____
Protocol no ___ from "___" _____ 20__ .

Head of the department _____ Volodymyr GELMBOLDT

1. DESCRIPTION OF THE ACADEMIC DISCIPLINE

<table>
<tr><th>Name of indicators</th><th>Field of knowledge, specialty, specialization, level of higher education</th><th>Characteristics of the academic discipline</th></tr>
<tr><td rowspan="8">Total number:

Credits: 3

Hours: 90</td><td rowspan="8">Area of Knowledge
22 "Healthcare"

Specialty
226 "Pharmacy, Industrial Pharmacy"

Specialization
226.01 "Pharmacy"

Level of higher education
second (master's)</td><td>Full-time education
Mandatory discipline</td></tr>
<tr><td>Year of preparation: 4</td></tr>
<tr><td>Semesters VII</td></tr>
<tr><td>Lectures (20 h.)</td></tr>
<tr><td>Practical (40 h.)</td></tr>
<tr><td>Independent work (30 h.)</td></tr>
<tr><td>Final control form – credit</td></tr>
</table>

2. GOALS AND OBJECTIVES OF THE ACADEMIC DISCIPLINE, COMPETENCES, PROGRAM LEARNING OUTCOMES.

Goal: teaching students the theoretical foundations of cosmetic, medical and cosmetic care for the skin and its appendages, the rules for applying cosmetic procedures, the use of cosmetic preparations depending on the type of skin, on cosmetic defects; to compose and justify the recipe for perfumery and cosmetic products; to choose and justify a rational method of producing perfumery and cosmetic products; practical skills and abilities in the manufacture of cosmetics, their quality control.

Task: to master the provisions of state regulation on the production and sale of perfumery and cosmetic products; to master the basic approaches to the analysis of cosmetic formulations that exhibit hygienic, therapeutic, prophylactic and decorative effects; to study the market of medicinal cosmetic preparations; to master the schemes for compiling and implementing rational manufacturing technology and quality control of cosmetic preparations in accordance with the requirements of the QCM.

The process of studying the discipline is aimed at forming elements of the following competencies**:**

General (GC):

GC 1 – The ability to think abstractly, analyze and synthesize, learn and be up-to-date.
GC 2 – Knowledge and understanding of the subject area and understanding of professional activity.
GC 5 – Ability to evaluate and ensure the quality of work performed.
GC 6. Ability to work in a team.
GC 9 – Ability to use information and communication technologies.

Specialists (SC):

SC 12 – Ability to ensure proper storage of medicinal products of natural and synthetic origin and other pharmacy products in accordance with their physicochemical properties and the rules of Good Storage Practice (GSP) in healthcare facilities.
SC 19 – Ability to organize and carry out quality control of medicinal products of natural and synthetic origin in accordance with the requirements of the current edition of the State Pharmacopoeia of Ukraine, quality control methods (QCM), technological instructions, etc.; prevent the distribution of low-quality, falsified and unregistered medicinal products.

SC 20 – Ability to develop and evaluate quality control methods for medicinal products of natural and synthetic origin, including active pharmaceutical ingredients, medicinal plant raw materials and excipients using physical, chemical, physicochemical, biological, microbiological, pharmaco-technological methods; standardize medicinal products in accordance with current requirements.

Programmatic learning results (PLO):

PLO 3 – Have specialized knowledge and skills to solve professional problems and tasks, including for the purpose of further developing knowledge and procedures in the field of pharmacy.

PLO 20 – To carry out pharmaceutical development of medicinal products of natural and synthetic origin in industrial production conditions.

PLO 22 – To ensure and carry out quality control of medicinal products of natural and synthetic origin and document its results; to issue quality certificates and certificates of analysis taking into account the requirements of the current edition of the State Pharmacopoeia of Ukraine, quality control methods (QCM), technological instructions, etc.; to take measures to prevent the distribution of low-quality, falsified and unregistered medicinal products.

PLO 23 – Determine the main chemical and pharmaceutical characteristics of medicinal products of natural and synthetic origin; select and/or develop quality control methods for their standardization using physical, chemical, physicochemical, biological, microbiological and pharmaco-technological methods in accordance with current requirements.

As a result of studying the academic discipline, a higher education applicant must:

Know:

- technology and organize the production of cosmetic medicines using the necessary equipment;
- assess the quality and stability of semi-finished and finished products. determine the impact of environmental factors: moisture, temperature, light, etc. on their stability;
- equirements of GPP, other good pharmaceutical practices and regulatory documents (orders, guidelines, etc.) regarding the development and manufacture of cosmetic products, requirements for containers, closures and packaging materials.

Be able to:

- conduct professional activities in social interaction based on humanistic and ethical principles; identify future professional activities as socially significant for human health;
- apply knowledge of general and specialized disciplines in professional activities;
- use the results of independent search, analysis and synthesis of information from various sources to solve typical tasks of professional activity;
- argue information for decision-making, bear responsibility for them in standard and non-standard professional situations;
- adhere to the principles of deontology and ethics in professional activities;
- perform professional activities using creative methods and approaches;
- carry out professional activities using reference scientific literature, information technologies, "Information databases", navigation systems, Internet resources, software and other information and communication technologies;
- use methods for assessing performance quality indicators; identify reserves for increasing labor efficiency;
- objectively use the advanced foreign experience of cosmetic manufacturers.

3. CONTENT OF THE COURSE

Topic 1. **Morphology and physiology of the skin and its appendages.**

- methods for determining skin types and other clinical characteristics;
- cosmetic, medical and cosmetic skin care;
- cosmetic preparations, their classification and characteristics.

Topic 2. **Active and auxiliary substances of medicinal cosmetics. Medicinal plants and bee products in cosmetology. Industrial production of perfumery and cosmetics.**

- active and auxiliary substances that are part of medicinal cosmetics;
- classification of active and auxiliary substances;
- characteristics of active and auxiliary substances;
- medicinal plants in cosmetology.

Topic 3. **Skin care products. Medicinal cosmetic preparations for the treatment of skin pathologies.**

- lotions, cosmetics, tonics, their technology and quality assessment - characteristics, technology, quality assessment;
- medicinal cosmetic preparations for the treatment of skin pathologies - characteristics, technology, quality assessment.

Topic 4. **Therapeutic cosmetic masks, cosmetic scrubs. Therapeutic cosmetic creams.**

- masks, cosmetic scrubs - their characteristics, technology, quality assessment;
- cosmetic creams and medical cosmetic creams - their characteristics and technology, storage, quality assessment.

Topic 5. **Foaming cosmetics.**

- foaming cosmetics;
- cosmetic soaps;
- shower gels;
- medicinal detergents;
- technology, quality assessment.

Topic 6. **Hair care products. Therapeutic cosmetics for scalp diseases.**

- shampoos, their technology, storage, quality assessment;
- hair care products (conditioners, rinses), technology, storage, quality assessment.

Topic 7. **Deodorizing cosmetics. Therapeutic cosmetics for nail diseases. Cosmetics for oral and dental care.**

- deodorant cosmetics, characteristics;
- nail care products;
- cosmetic preparations for oral and dental care;
- technology and quality assessment, storage conditions.

Topic 8. **Decorative cosmetics. Decorative hair care products.**

- characteristics, technology, quality assessment.

Topic 9. **Aromatic compositions for skin care. Aromatic compositions for hair care.**

- for the prevention and treatment of skin pathologies;
- for the treatment of hair pathologies;
- perfumery technology, storage terms and conditions, quality assessment.

4. STRUCTURE OF THE ACADEMIC DISCIPLINE

Topic names	Number of hours of full-time study			
	Total	including		
		lectures	practical	IWS
Topic 1. Morphology and physiology of the skin and its appendages.	8	4	2	2
Topic 2. Active and auxiliary substances of medicinal cosmetics. Medicinal plants and bee products in cosmetology. Industrial production of perfumery and cosmetics.	8	2	4	2
Topic 3. Skin care products. Medicinal cosmetic preparations for the treatment of skin pathologies.	11	2	6	3
Topic 4. Therapeutic cosmetic masks, cosmetic scrubs. Therapeutic cosmetic creams.	11	2	6	3
Topic 5. Foaming cosmetics.	11	2	6	3
Topic 6. Hair care products. Therapeutic cosmetics for scalp diseases.	9	2	4	3
Topic 7. Deodorizing cosmetics. Therapeutic cosmetics for nail diseases. Cosmetics for oral and dental care.	9	2	4	3
Topic 8. Decorative cosmetics. Decorative hair care products.	10	2	4	4
Topic 9. Aromatic compositions for skin care. Aromatic compositions for hair care.	13	2	4	7
Total hours	**90**	**20**	**40**	**30**

5. TOPICS OF LECTURES / SEMINARS / PRACTICAL / LABORATORY CLASSES

5.1. Lecture topics

№ i/o	Topic name	Number of hours
1.	Lecture 1. Morphology and physiology of the skin and its appendages. Methods for determining skin types and other clinical characteristics. Cosmetic, medical and cosmetic skin care.	2
2.	Lecture 2. Cosmetic preparations, their classification and characteristics.	2
3.	Lecture 3. Active and auxiliary substances that are part of medicinal cosmetics, their classification and characteristics. Medicinal plants and beekeeping products in cosmetology. Industrial production of perfumery and cosmetics.	2
4.	Lecture 4. Skin care products. Lotions, cosmetics, tonics, their technology and quality assessment. Medicinal cosmetic preparations for the treatment of skin pathologies, their characteristics, technology, quality assessment.	2
5.	Lecture 5. Masks, cosmetic scrubs, their characteristics, technology, quality assessment. Therapeutic cosmetic masks. Cosmetic creams, their characteristics and technology, storage, quality assessment. Therapeutic cosmetic creams.	2
6.	Lecture 6. Cosmetic foaming agents. Cosmetic soaps. Technology, quality assessment. Bath foams. Shower gels. Technology, quality assessment. Therapeutic detergents.	2
7.	Lecture 7. Hair care products. Shampoos, their technology, storage, quality assessment. Hair care products (conditioners, rinses), technology, storage, quality assessment. Therapeutic cosmetics for scalp diseases	2
8.	Lecture 8. Deodorizing cosmetics, characteristics, technology and quality assessment. Nail care products. Therapeutic cosmetics for nail diseases. Cosmetics for oral and dental care. Technology. Quality assessment, storage conditions.	2
9.	Lecture 9. Decorative cosmetics, their characteristics, technology, quality assessment. Decorative hair care cosmetics.	2
10.	Lecture 10. Aromatic compositions for skin care, for the prevention and treatment	2

	of skin pathologies. Aromatic compositions for hair care, for the treatment of hair pathologies. Technology of perfumery, terms and conditions of storage, quality assessment.	
Number of lecture hours in the discipline		**20**

5.2. Seminar topics

Seminars are not provided

5.3. Topics of practical classes

№ i/o	**Topic name**	**Number of hours**
1.	Topic 1. Practical lesson 1. Morphology and physiology of the skin and its appendages. Methods for determining skin types and other clinical characteristics.	2
2.	Topic 2. Practical lesson 2. Active and auxiliary substances that are part of medicinal cosmetics, their classification and characteristics.	2
3.	Topic 2. Practical lesson 3. Medicinal plants and bee products in cosmetology. Industrial production of perfumery and cosmetics.	2
4.	Topic 3. Practical lesson 4. Skin care products. Lotions, cosmetics, tonics, their technology and quality assessment.	2
5.	Topic 3. Practical lesson 5. Medical cosmetic preparations for the treatment of skin pathologies, their characteristics, technology, quality assessment	2
6.		2
7.	Cosmetic masks, scrubs, their characteristics, technology, quality assessment.	2
8.		2
9.		2
10.		2
11.	Cosmetic foaming agents. Cosmetic soaps. Technology, quality assessment.	2
12.		2
13.		2
14.		2
15.		2
16.		2
17.		2
18.		2

19.	Aromatic compositions for skin care, for the prevention and treatment of skin pathologies. Aromatic compositions for hair care, for the treatment of hair pathologies.	2
20.		2
Number of hours of practical classes in the discipline		**40**

6. INDEPENDENT WORK OF A HIGHER EDUCATION STUDENT

№ i/o	**Topic name / types of tasks**	**Number of hours**
1.	Topic 1. Morphology and physiology of the skin and its appendages. Methods for determining skin types and other clinical characteristics. Cosmetic, medical and cosmetic skin care. Cosmetic preparations, their classification and characteristics	2
2.	Topic 2. Active and auxiliary substances that are part of medicinal cosmetics, their classification and characteristics. Medicinal plants and beekeeping products in cosmetology. Industrial production of perfumery and cosmetics.	2
3.	Topic 3. Skin care products. Lotions, cosmetics, tonics, their technology and quality assessment. Medicinal cosmetic preparations for the treatment of skin pathologies, their characteristics, technology, quality assessment	3
4.	Topic 4. Masks, cosmetic scrubs, their characteristics, technology, quality assessment. Therapeutic cosmetic masks. Cosmetic creams, their characteristics and technology, storage, quality assessment. Therapeutic cosmetic creams	3
5.	Topic 5. Foaming cosmetics. Cosmetic soaps. Technology, quality assessment. Bath foams. Shower gels. Technology, quality assessment. Therapeutic detergents.	3
6.	Topic 6. Hair care products. Shampoos, their technology, storage, quality assessment. Hair care products (conditioners, rinses), technology, storage, quality assessment. Therapeutic cosmetics for scalp diseases.	3
7.	Topic 7. Deodorizing cosmetics, characteristics, technology and quality assessment. Nail care products. Therapeutic cosmetics for nail diseases. Cosmetics for oral and dental care. Technology. Quality assessment, storage conditions.	3
8.	Topic 8. Decorative cosmetics, their characteristics, technology, quality assessment. Decorative hair care cosmetics.	4
9.	Topic 9. Aromatic compositions for skin care, for the prevention and treatment of skin pathologies. Aromatic compositions for hair care, for the treatment of hair pathologies. Technology of perfumery, terms and conditions of storage, quality assessment. Final test. Test on practical skills.	7
Number of hours of independent work on the discipline		**30**

7. FORMS AND METHODS OF TEACHING

Forms of education:

The discipline is taught in the form of practical classes; organization of independent work of the applicant.

Methods of learning:

Practical classes: conversation, role-playing games, solving situational problems, solving test problems.

Independent work: independent work with the textbook, independent work with recommended basic and additional literature, with electronic information resources, independent solution of clinical tasks.

8. FORMS OF CONTROL AND CRITERIA FOR ASSESSING LEARNING OUTCOMES

Forms of current control: oral (survey), testing, assessment of practical exercises, assessment of communication skills, solving situational clinical tasks, assessment of activity in class and independent work of applicants.

Final control form: credit.

Criteria for assessing the learning outcomes of higher education applicants during current control

Assessment	Assessment criteria
Excellent «5»	The applicant is fluent in the material, actively participates in the discussion and solution of a situational clinical problem, confidently demonstrates practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data, expresses his opinion on the topic of the lesson, and demonstrates clinical thinking.
Good «4»	The applicant has a good command of the material, participates in the discussion and solution of a situational clinical problem, demonstrates practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data with some errors, expresses his opinion on the topic of the lesson, and demonstrates clinical thinking.
Satisfactory «3»	The applicant does not have sufficient knowledge of the material, participates uncertainly in the discussion and solution of a situational clinical problem, demonstrates practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data with significant errors.
Unsatisfactory «2»	The applicant does not possess the material, does not participate in the discussion and solution of a situational clinical problem, does not demonstrate practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data.

A credit is issued to an applicant who has completed all the tasks of the work program of the academic discipline, actively participated in practical classes, completed and defended an individual assignment, and has an average current grade of at least 3.0 and has no academic debt.

The test is carried out: in the last lesson before the beginning of the examination session - in the case of the tape learning system, in the last lesson - in the case of the cyclic learning system. The test score is the arithmetic mean of all components on the traditional four-point scale and has a value that is rounded using the statistical method to two decimal places.

9. DISTRIBUTION OF POINTS RECEIVED BY HIGHER EDUCATION STUDENTS

Points in the academic discipline for applicants who have successfully completed the program are converted into a traditional four-point scale according to the absolute criteria given in the table:

National assessment for discipline	Total points for the discipline
Excellent («5»)	185 – 200
Good («4»)	151 – 184
Satisfactory («3»)	120 – 150
Unsatisfactory («2»)	Lower 120

A multi-point scale (200-point scale) characterizes the actual success of each applicant in mastering the academic discipline. The conversion of the traditional assessment into a 200-point one is performed by the University's information and technology department using the "Contingent" program according to the appropriate formula: Average score of success (current success in the discipline) x 40**.**

According ***to the ECTS rating scale***, the achievements of the students in the academic discipline who are studying in the same course of the same specialty are evaluated, according to the points they received, by means of ranking, namely:

ECTS grade	Statistical indicator
A	The best 10% of achievers
B	Next 25% of achievers
C	Next 30% of achievers
D	Next 25% of achievers
E	Next 10% of achievers

The ECTS scale establishes the applicant's belonging to the group of the best or worst among the reference group of fellow students (faculty, specialty), that is, his rating. When converting from a multi-point scale, as a rule, the boundaries of the grades "A", "B", "C", "D", "E" do not coincide with the boundaries of the grades "5", "4", "3" according to the traditional scale. The grade "A" on the ECTS scale cannot be equal to the grade "excellent", and the grade "B" - to the grade "good", etc. Applicants who received grades "FX" and "F" ("2") are not included in the list of ranked applicants. Such applicants automatically receive an "E" grade after retaking. The "FX" grade is given to applicants who have scored the minimum number of points for current educational activities, but who have not passed the final test. A grade of "F" is given to students who attended all classroom classes in the academic discipline, but did not achieve a grade point average (3.00) for current academic activities and were not admitted to the final examination.

10. METHODOLOGICAL SUPPORT

- Syllabus of the academic discipline;
- Work program of the academic discipline;
- Methodological recommendations for practical classes;
- Methodological recommendations for independent work of higher education applicants;
- Multimedia presentations;
- Illustrative materials;
- Situational tasks.

11. QUESTIONS FOR PREPARATION FOR THE FINAL TEST

1. Structure of the epidermis. Structural features and functions of the layers of the epidermis. Mitotic activity of basal epidermocytes. Factors affecting mitotic activity.
2. Structure of the dermis and hypodermis. Structural features and functions of these layers.
3. Sweat and sebaceous glands. Structure and functions.
4. Levels and routes of penetration of cosmetic products. Lipid barrier. Factors contributing to increased penetration of substances through the skin.
5. Regulatory documents regulating the production and sale of perfumery and cosmetic

products. Definition. Categories. Structure and content of sections of technical specifications.

6. Procedure for obtaining a permit for the production and sale of perfumery and cosmetic products.
7. Certification: concept and procedure. Procedure for importing imported products into the territory of Ukraine. Sanitary and hygienic examination of perfumery and cosmetic products.
8. Cosmetic effect of individually prepared preparations Features of the formulation and technology depending on the purpose and form of release.
9. Biologically active components in the formulation of cosmetic products. Classification. Cosmetic effect of BAS (on the example of vitamins and proteins).
10. Classification of foaming agents and representatives. Cosmetic effect and mechanism of cleansing action of foaming cosmetic preparations.
11. Classification, functional purpose and features of the cosmetic effect of surfactants (surfactants). Area of application in cosmetology.
12. Shampoos: definition, classification, cosmetic effect. Active and auxiliary components of the formulation. Their characteristics and recommended concentration.
13. Quality control of shampoos according to the requirements of QCM.
14. Definition, classification and cosmetic effect of rinses and balms. Formulation of rinses and balms for hair for different types of hair, taking into account the direction of action.
15. Technological stages of production of balms and rinses. Quality control of balms and rinses according to the requirements of QCM.
16. Definition, classification and cosmetic effect of toilet soap. Characteristics of raw materials used in the production of solid toilet soap.
17. Technology of solid toilet soap.
18. Quality control of liquid toilet soap, according to the requirements of QCM.
19. Classification, cosmetic effect of cosmetic lotions. Characteristics and recommended concentration of components of the lotion formulation.
20. Technology and quality control of lotions and tonics.
21. Classification and characteristics of components of the formulation of dental elixirs. Technology and quality indicators of dental elixirs.
22. Components of the formulation of nail polish remover. Technology and quality indicators.
23. Cosmetic creams: classification, cosmetic effect, features and advantages of action on the skin. Technological methods of stabilizing cosmetic creams on an emulsion basis.
24. Requirements for the formulation, characteristics of the ingredients of cosmetic creams based on emulsions of the 1st type.
25. Requirements for the formulation, characteristics of the ingredients of cosmetic creams based on emulsions of the 2nd type.
26. Technology of cosmetic emulsions of the oil-in-water type.
27. Technology of cosmetic emulsions of the water-in-oil type.
28. Quality indicators of cosmetic creams on an emulsion basis (water in oil) of a thick consistency.
29. Quality indicators of cosmetic creams on an emulsion basis (oil in water)
30. Characteristics of the formulation of cosmetic creams on a fat basis. Cosmetic effect, features of use. Technology of preparation of fat creams.
31. Cosmetic effect of cosmetic creams on a suspension basis depending on the fillers used. Characteristics of the components of the formulation of cosmetic creams on a suspension basis. Technology of suspension creams.
32. Cosmetic effect, classification and representatives of cosmetic preparations for decorative skin care. Lipstick: classification and cosmetic effect. Characteristics of the components of the formulation, recommended concentration.

33. Nail polish: classification and requirements. Characteristics of the components of the formulation, recommended concentration.
34. Technology and quality indicators of nail polish.
35. Preparations for chemical perm. Mechanism of changing the shape of hair under the influence of chemical perm. Characteristics of the components of the formulation, recommended concentration.
36. Hair dyes: classification and requirements. Classification and nomenclature of dyes. Mechanism of hair coloring. Characteristics of the components of the formulation, recommended concentration.
37. Mascara: classification and requirements. Main components of mascara formulation, recommended concentration.
38. Technology and quality indicators of mascara. Technology and quality indicators of mascara in a creamy form of release.
39. Technology and quality indicators of lipsticks.
40. Powder: purpose, classification and requirements. Characteristics of components and recommended concentration.
41. Technology of powder and compact powder.
42. Quality indicators of decorative cosmetics in a powdered and compact form of release.
43. Foundations. General characteristics. Functional purpose, nomenclature and comparative characteristics of the main components of the foundation formulation. Technology.
44. Quality control of decorative cosmetics on an emulsion basis.
45. Technology of hair dye production.
46. Quality control of hair dyes, according to QCM.
47. Quality control of hair perms, according to QCM.
48. Hairsprays: classification and cosmetic effect. Characteristics of the components of the formulation, recommended concentration.
49. Technology and quality control of hairsprays.
50. Mousses and foams for hair styling: classification and cosmetic effect. Characteristics of the components of the formulation, recommended concentration.
51. Technology and quality control of hair styling products.
52. Hair styling gels: classification and cosmetic effect. Characteristics of the components of the formulation, recommended concentration.
53. Technology and quality control of hair styling gels.
54. Classification and cosmetic effect of toothpastes. Characteristics of the active and auxiliary substances of the toothpaste formulation. Recommended concentration of the components of the composition.
55. Toothpaste technology.
56. Quality indicators of toothpastes according to QCM requirements.
57. Definition of the concept of "perfume". Classification of perfumery products. Degrees of odors in perfumery. Classification of odors according to "Givaudan".
58. Technology of perfume compositions and products. Quality indicators of perfumery products.
59. Classification of odorous substances depending on the nature of origin. Characteristics of odorous substances of synthetic and semi-synthetic origin.
60. Classification and characteristics of odorous substances of natural origin. Classification and nomenclature of odor fixers.
61. Therapeutic systems with controlled release of medicinal substances, their classification.

12. RECOMMENDED LITERATURE

Basic:

1. Elsner, P., Maibach, H. I., & Lachapelle, J. M. (Eds.) Cosmetics: Science and Technology of Skin Care Products. – Berlin: Springer, 2022. – 368 p.

2. Zhou, H., & Elsner, P. (Eds.) Cosmeceuticals and Cosmetic Practice. – London: Springer, 2022. – 293 p.
3. Barel, A. O., Paye, M., & Maibach, H. I. (Eds.) Handbook of Cosmetic Science and Technology. – New York: CRC Press, 2021. – 1044 p.
4. Sivamani, R. K., Jagdeo, J., Elsner, P., & Maibach, H. I. (Eds.) Cosmeceuticals and Active Cosmetics: Applications of Cosmetology Principles in Medicine. – Berlin: Springer, 2020. – 356 p.
5. Mukherjee, P. K. Quality Control and Evaluation of Herbal Drugs: Evaluating Natural Products and Traditional Medicine. – Amsterdam: Elsevier, 2019. – 890 p.

Additional:

1. 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.
2. 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.
3. Основи практичної косметології (Частина 2) Декоративний косметичний догляд. Під ред. А.Г. Башури. Харків: «Золоті сторінки» Видавництво НФаУ. - 2003. -94 с
4. Практичне керівництво з аромокосметичних засобів / О.Г. Башура, І.І. Баранова. - Харків: Видавництво НФаУ. - 2003. - 78 с.
5. А.Г. Башура, Н.П. Половко Технологія косметичних і парфумерних засобів / Харків: «Золоті сторінки» Видавництво НФаУ. - 2002. - 263 с.

13. INFORMATION RESOURCES

1. Official website of the Ministry of Health of Ukraine: www.moz.gov.ua.
2. Compendium: medicinal products: - [Electronic resource]. - Access mode: http://compendium.com.ua/.
3. European Pharmacopoeia (Ph. Eur.)
4. Бібліотека ОНМедУ (odmu.edu.ua) - ONMedU Scientific Library
5. www.moz.gov.ua – official website of the Ministry of Health of Ukraine
6. DrugBank онлайн