

Odessa National Medical University
Faculty of Pharmacy
Department of Drug Technology

Syllabus course

«Production and use of cosmetic products»

Scope	The total number of hours is 60; number of ECTS credits is 2.
Semester, year of study	VII semester, IV year of study
Days, time, place	According to the schedule
Lecturer (-and)	Borisyuk I. Yu. Doctor of Pharmaceutical Sciences Zamkovaya A. V. Candidate of Biological sciences, senior teacher
Contact phone	+380675595102, +380507425467
E-mail	iryna.borysyuk@onmedu.edu.ua alyona.zamkovaya@onmedu.edu.ua
Work place	Odessa, st. Malinovsky, 37, Faculty of Pharmacy, Department of Drug Technology, office 124 and office 122
Consulting	<i>Face-to-face consultations</i> consultation on a schedule on the principle of «Face to face» <i>Online consulting:</i> remotely on the Microsoft Teams platform https://www.microsoft.com/uk-ua/education/products/teams

COMMUNICATION

Communication in the audience on schedule. Other types of communication: consultation on a schedule on the principle of «Face to face», remotely on the platform of Microsoft Teams and with the help of e-mail lecturer or teacher of practical classes. The decision of «working questions» is possible on the specified phone numbers.

COURSE ANNOTATION

Subject of study of the discipline «Production and use of cosmetic products» are the basic provisions and trends in the development of pharmaceutical technology in the

world and in Ukraine; mastering modern principles of regulatory documentation and stages of production of cosmetics in various dosage forms with the use of groups of active substances and excipients permitted for use in cosmetic and medical practices; use of modern types of equipment under conditions of extemporaneous and industrial production in the process of manufacturing cosmetic and medicinal cosmetics.

Course prerequisites: discipline is based on the knowledge received at studying of the general disciplines: latin, botany, analytical chemistry, pharmacy technology of drugs, pharmacognosy, pharmacology, pharmaceutical chemistry, toxicological chemistry.

Postrequisites of the course: the knowledge gained at the end of the study of this discipline is necessary for the study of such disciplines: industrial technology of medicines, biotechnology, pharmaceutical biotechnology.

The purpose of the course is to form student's theoretical knowledge and practical skills in the composition, manufacture and quality control of the main groups of perfumes and cosmetics, providing future professionals with the opportunity to perform functional duties, providing multifaceted advice to the public on the use of cosmetics.

Tasks the discipline:

- 1) Assimilation and analysis of the requirements of current regulations (State Pharmacopoeia of Ukraine, GMP, State sanitary rules and regulations 2.2.7.029-99, «Technical Regulations for Cosmetic Products» guidelines and orders of the Ministry of Health) to the organization of production activities and sales of medicinal cosmetics and cosmetics of various forms;
- 2) acquaintance with the organization of production of medicinal cosmetics in the conditions of the pharmaceutical enterprises, according to requirements of Good manufacturing practice (GMP);
- 3) use in professional activity of normative-legal and legislative acts of Ukraine, requirements of Good manufacturing practice (GMP) and implementation of international legal norms concerning the manufacture of medicinal cosmetics by extemporaneous (pharmacy) and industrial methods;
- 4) formation of basic knowledge in applicants for higher medical education, which relate to: the theoretical foundations of the manufacture and appropriate use of various types of dosage and cosmetic forms;
- 5) understanding of the stages of step-by-step control and ways to improve the technology of cosmetic dosage forms under conditions of extemporaneous (pharmacy) and industrial production;
- 6) study of the influence of storage conditions and type of packaging on the stability of medicinal cosmetics;
- 7) study of equipment and devices used in technological schemes in the process of manufacturing medicinal cosmetics.

Expected Results:

As a result of studying the discipline, the applicant must:

Know:

- 1) Classification, nomenclature, mechanism and types of action of cosmetics of hygienic, treatment-and-prophylactic and decorative action.
- 2) Prepare different types of cosmetics taking into account the physicochemical properties of drugs and the nature of excipients.
- 3) Know the equipment and means of small mechanization in the technology of cosmetic forms.
- 4) Know the conditions of proper storage of medicines 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 facilities.
- 5) Know the technology of industrial drugs; GMP requirements and other good pharmaceutical practices for the manufacture of finished medicinal products.

Be able:

- 1) According to the requirements of regulatory technical documentation, using the necessary equipment to select the most optimal technology to classify and characterize dosage and cosmetic forms by types of dispersed systems, method of use, destination, physical state, taking into account physicochemical properties of active and excipients;
- 2) to prepare various dosage and cosmetic forms of extemporaneous and dosage forms of industrial production (list 3) from medicinal and excipients;
- 3) On the basis of reference pharmacological literature and accompanying documentation: to make a comparative description of drugs in accordance with list 1b, taking into account the chemical structure, mechanism of action and pharmacological properties to determine the advantages and disadvantages of individual drugs;
- 4) According to the technological rules and requirements of regulatory documentation to choose the optimal technology for the manufacture of perfumes, cosmetics and dosage forms (lists 3 and 5), using the necessary devices, equipment, basic and auxiliary substances, taking into account system type, physicochemical, technological, biopharmaceutical properties and excipients;
- 5) Determination of the main quality indicators of perfumes and cosmetics, using the necessary equipment and requirements of analytical and regulatory documentation.

COURSE DESCRIPTION

Forms and methods of teaching

The course will be presented in the form of lectures (20 hours) and practical classes (20 hours), organization of independent work (20 hours).

During the teaching of the discipline, it is provided for individual and group consultations.

Content of the academic discipline:

Theme 1. Regulatory documentation governing the development, construction, presentation, design, approval, approval and registration of RTD cosmetics.

Theme 2. Classification and nomenclature of cosmetic drugs. Types of action of medicinal cosmetics.

Theme 3. Stages of creating new perfumes and cosmetics. Cosmetic effectiveness of active substances.

Theme 4. Therapeutic and preventive cosmetic care.

Theme 5. Forms and methods of application of medicinal cosmetics.

Theme 6. Equipment for perfumery and cosmetics.

Theme 7. Basic and auxiliary equipment for the production of solid cosmetics.

Theme 8. Basic and auxiliary equipment in the production of soft cosmetic forms.

Theme 9. Basic and auxiliary equipment in the production of perfumes and cosmetics.

Theme 10. Methods for determining the quality of medical and cosmetic products. Containers and packaging of medical and cosmetic products.

List of main recommended literature:

1. Державна Фармакопея України / Державне підприємство «Український науковий фармакопейний центр якості лікарських засобів». – 2-е вид. – Доповнення 1. – Харків: Державне підприємство «Український науковий фармакопейний центр якості лікарських засобів», 2016. – 360 с.
2. Дерматологія і венерологія: підручник / В.І. Степаненко, А.І. Чоботарь, С.О. Бондарь та ін. – 2-е видання – К.: Всеукраїнське спеціалізоване видавництво «Медицина», 2020. – 336 с.
3. Допоміжні речовини у виробництві ліків : навч. посібн. для студ. вищ. фармац. навч. закл. / О.А. Рубан, І.М. Перцев, С.А. Куценко, Ю.С. Маслій; за ред. І.М. Перцева. – Х.: Золоті сторінки, 2016. – 720 с.
4. Інноваційні технології і дизайн парфумерно-косметичних продуктів: навчальний посібник / Іванова Л.О., Шарахматова Т.Є., Іваненко Є.В. – Тернопіль: Тернопільський національний технічний університет імені Івана Пулюя, 2018. – 140 с.
5. Основы практической косметологии: учебное пособие для студентов / В.П. Федотов, В.А. Бочаров, Е.Ю. Корецкая и др. – Запорожье: «Просвіта», 2016. – 312 с., ил.
6. Технологія косметичних засобів: підручник для студ. вищ. навч. закладів / О.Г. Башура, О.І. Тихонов, В.В. Россіхін, І.І. Баранова, Л.С. Петровська, Т.В. Мартинюк, В.С. Казакова, О.С. Шпичак [та ін.]; за ред. О. Г. Башури і О. І. Тихонова. – Х.: НФаУ; Оригінал, 2017. – 552 с.
7. Технологія парфумерно-косметичних продуктів: навчальний посібник /Л.В. Пешук, Л.І. Бавіка, І.М. Демідов. – К.: Центр учбової літератури, 2019. – 376 с.
8. Технологія та застосування лікувально-косметичних засобів. Навчальний посібник / О. В. Федорова, Р. О. Петріна, Н. Л. Заярнюк, В. В. Гавриляк, А. О. Милянч, В. П. Новіков. Львів: Видавництво Львівської політехніки, 2019. 244 с.
9. Фармацевтична енциклопедія / голова ред. ради В. П. Черних. К.: Моріон, 2016. URL: www.pharmencyclopedia.com.ua
10. Deb Willis. Cosmetology and Dermatology. New York: Hayle Medical, 2016. – 257 pages.
11. Maria Claudia Almeida Issa, Bhertha Tamura, editors. Botulinum Toxins, Fillers and Related Substances (Clinical Approaches and Procedures in Cosmetic Dermatology). Cham, Switzerland: Springer, 2018. – 463 pages.

All other necessary textbooks and manuals in electronic form will be provided on an individual basis.

EVALUATION

Current control. Evaluation of the success of studying the topics of the discipline is carried out according to the traditional 4-point scale.

Methods and means of control: oral questioning; written survey; situational tasks, tests; practicing practical skills.

Oral control (participation in creative conversations, answers during the practical lesson) - current control in each classroom - traditional 4-point scale (no more than 75% of students). At the end of the study, the current performance is calculated - the average current score (arithmetic mean of all current grades on a traditional scale, rounded to two decimal places). Only those students who do not have academic debt and have an average score of at least 3.00 for current academic activities are allowed to take the final certification.

Assessment of independent work (performance of individual tasks and their defense during practical classes) is performed on the traditional 4-point scale, the deadline - during the course of the discipline.

The final control in the form for is assessed on a two-point scale.

Students who have fully completed the training program in the discipline do not have academic debt, their average current performance score is 3,00 or more, and in the last lesson they receive a credit that is set as «passed» / «not credited».

If the discipline ends with a **credit**, only the average score of the current performance is calculated, ie the arithmetic mean of all grades obtained on a traditional scale, rounded to two decimal places, which is converted to a 200-point system.

Conversion of the traditional grade from the discipline to 200-point is performed by the information and computer center of the university program «Contingent». Conversion of the traditional national assessment into a multi-point one (maximum 200 points) is required.

No bonus points will be awarded.

Independent work of students

Study time set aside for independent work is regulated by the curriculum. The content of the student's independent work on a particular discipline is determined by the working curriculum, teaching materials, tasks and instructions of the teacher.

Independent work of students consists of independent in-depth study of a certain list of topics. Issues related to self-study are included in the relevant control measures and are controlled in the form of writing essays (IWS) and preparation of presentations. Assessment of independent work is carried out according to the traditional 4-point scale, the term of completion is during the course of the discipline.

COURSE POLICY («rules of the game»):

Deadline and retake policy.

The final control is carried out in the audience in the penultimate week. In the absence or low result, the final written control is shifted at a time in the last week on the day of the scheduled consultation (Thursday from 15.00 to 16.00). In case of non-compliance with the policy on deadlines and translation, the control measures are not taken into account.

Policy on Academic Virtue: the course involves writing abstracts (IWS), which will be tested for academic virtue (according to the Regulations on the Commission on Academic Virtue of Odessa National Medical University).

Attendance and lateness policy: attendance at lectures and workshops is compulsory, late arrivals are not advisable. Points for attending lectures and practical classes are not accrued. An important reason for absence from classes is an illness, which is confirmed by a certificate from a doctor (hospital).

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

Behavior in class or remotely on Microsoft Teams: active, business and creative atmosphere.