



National Pirogov Memorial Medical University, Vinnytsia



Department of Pharmacy

# Theoretical bases of pharmacy compounding



Elective course

# Topicality

- The discipline lays the foundations for higher education knowledge of pharmacy compounding and industrial drug technology.
- forms an understanding of modern directions of development of pharmaceutical technology and professional activity
- is a link between the theoretical disciplines that form the profile of the Master of Pharmacy.



# The course "Theoretical bases of pharmacy compounding" will consider:

Discussion and systematization of lecture material and material of auxiliary literature

Analysis of the mechanisms of technological processes and factors influencing their course



Solving theoretical problems related to the description and classification of relevant technological processes

Solving situational problems on the topic of the lesson, concerning the advantages and disadvantages of using different types of equipment for a particular technological process

# The Goal of the course

- acquaintance of higher education students with the historical way of development of pharmaceutical technology;
- formation of theoretical foundations of dosage form technology in higher education students;
- knowing of higher education students with the main technological processes of grinding, dissolving, diffusion, filtration, emulsification, extraction and other general processes of production of various dosage forms;
- acquisition by graduates of practical competencies in the field of professional activity of pharmaceutical workers.

# Material and technical Equipment

- Lecture course
- Regulations
- Periodicals
- Reference and educational literature
- Meetings with practicing pharmacists
- Manuals and methodical materials



# As a result of training you will:

## Know:

- Current trends in the industry.
- Structure and features of professional activity.
- Hydromechanical, mechanical, thermal, mass transfer processes.
- Provision of technological processes by devices in the pharmaceutical industry.
- Directions of rational use of machines and mechanisms.
- Technological processes in the manufacture of various dosage forms.
- Theoretical bases of grinding, sieving and mixing of solid materials.
- Theoretical bases of dissolution of solids in liquids.
- Theoretical bases of distribution of inhomogeneous systems.
- Theoretical bases of extraction.
- Theoretical bases of stabilization of heterogeneous systems.

# As a result of training you will:

## Be able:

- Substantiate the theoretical foundations of grinding, sieving and mixing of solid materials.
- Formulate the basics of the theory of dissolution of solids in liquids.
- Use the basic theoretical foundations of the distribution of inhomogeneous systems.
- Formulate the theoretical basis of extraction.
- Interpret the main processes that characterize the stability and coagulation of colloidal systems.
- Explain the main processes occurring in heterogeneous systems.
- Know the types of instability and theoretical foundations of stabilization of heterogeneous systems.
- Use regulations governing pharmaceutical activities.

# Forms and methods of education

Interesting and informative lectures and practical classes

Use of innovative learning technologies

Tours to the laboratories of pharmaceutical companies

Meetings with specialists in the field



# Course teachers



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The head of Department of Pharmacy, Dr Sci (pharmacy), Full Prof.

Research interests: development of composition and technology of drug production, marketing research of the pharmaceutical market



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