

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

# МАТЕРІАЛИ

III науково-практичної інтернет-конференції



**РОЗВИТОК  
ПРИРОДНИЧИХ НАУК  
ЯК ОСНОВА НОВІТНІХ  
ДОСЯГНЕНЬ У  
МЕДИЦИНІ**

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on-line. The results of such tests are analysed late. It helps to improve the future lectures as by mean of such test we can determine the points that should be explained better and need more detail explanation or more examples should be given for students.

Practical skills for students include their experience with clinical cases, particularly with diagnosis and treatment procedures. For online educational process the learning of practical skills and evaluation of students` knowledge begins to be more complicated. As “Traumatology and Orthopaedics” is surgical based discipline, so this problem is even more important. Many possibilities and approaches were analysed, as case learning method, use of online test systems and online tasks, online discussions with students, etc., to find more effective way of learning. Students must have more experience with clinical cases, particularly with interactive diagnosis and treatment procedures. Learning such practical skills by students, as clinical examination of patients, the technique of measurements limbs` length and joints` range of motion, first medical aid for fractures are still difficult on-line. So the way of resolve this problem should be found later, may be by the use of virtual reality technologies.

**Conclusion.** The control of student`s knowledge within on-line education is more complicated than for off-line studding. The complex approach using online and PC test systems can improve educational process, so it can be recommended for everyday use. It gives many possibilities for teachers and allows organising individual educational approach during on-line and hybrid forms of education.

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METHODOLOGICAL APPROACHES TO TEACHING THE COURSE OF THE STUDENT'S CHOICE  
"DEVELOPMENT OF MEDICINAL PRODUCTS"

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Teaching and learning factors – any factors that can influence the learning process, include individual teacher`s or student`s experience, relationships, rules, programs, and strategies. Real differences in pedagogical strategies cannot definitely reflect on expected program results. Meta-analyses of studies studying education show the dependence of learning effectiveness on methodological techniques in teaching disciplines that provide professional training that meets

modern requirements [1]. In medical education, in particular in the field of pharmaceuticals, the process of expanding the framework of competences continues. Professional competence is an integrated, complex, dynamic phenomenon that combines knowledge, abilities, skills with professional abilities and personal qualities of a person. The acquisition of competencies that can be holistically implemented in practice thanks to integrated knowledge, a culture of communication, the ability to solve problems in real life situations, provides a meta-subject approach.

The competence basis of professional training in the education system involves the formation of a set of professional and extra-professional competences (or meta-competencies), as well as soft skills, among graduates of higher educational institutions [2]. It is worth noting that the course chosen by students of the Faculty of Pharmacy "Development of medicinal products" is aimed, in particular, at the acquisition of competencies based on meta-subject results. Meta-competences include knowledge, adaptation, anticipation of changes, flexibility, therefore, relate to a wide range of professional tasks of future work. The structural components of professional competence are goal-motivational, cognitive, personal, communicative, control-reflexive components [3]. The formation of a personal component involves the ability to solve problematic issues arising in pharmaceutical activity and to act through the prism of bioethics. Compliance with bioethical requirements is a mandatory condition at the stages of drug creation – pharmaceutical development, preclinical study, clinical trial. Actually, the application of concepts, principles and rules (norms of bioethics) to the research, development, supply, commercialization and clinical use of biopharmaceutical products for health care is the definition of biopharmaceutical ethics [4]. Students of the Faculty of Pharmacy consider ethical norms as the basis of general morality in the course chosen by the student "Life safety, basics of bioethics and biosafety".

However, within a specific field, in particular pharmaceutical, the norms of applied ethics require additional clarification. In order to specialize in moral problems, the program of the educational discipline "Development of medicinal products" provides consideration of such issues as the ethics of conducting experimental research on potential drugs, the ethics of clinical trials of a new or already known medicinal product. The subject field remains general ethical principles and rules. At the same time, situational tasks simulated during practical classes are offered for making professional decisions taking into account moral ideals, principles of autonomy, beneficence, harm and justice. It is worth noting that the guidelines for the development of medicinal products are dominated by principled approaches to assessing the benefit/risk ratio – the ratio of positive therapeutic effects and possible risks associated with the use of pharmacological drugs. When discussing the ethics of clinical trials, research design is optimized with the determination of directions that minimize the impact of unwanted effects on the results. In fact, in such situations, the

acquired knowledge of pharmacology, side effects of drugs is integrated to outline the spectrum of possible unwanted effects of a certain class of drugs, which includes situational task drugs that are promising for further development and practical implementation.

Therefore, in the classes of the educational discipline "Development of medicinal products", the basic questions of the rules and principles of bioethics are considered in the context of the methodology of preclinical and clinical research. At the same time, when discussing ethical approaches to creation, a moral component is formed, where the priorities are human life, health, and responsibility for them. With such methodological approaches, the results of the discussion of ethical aspects of drug development are meaningful and action-oriented.

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## ЗАСТОСУВАННЯ ІНТЕРАКТИВНИХ МЕТОДІВ НАВЧАННЯ У ФОРМУВАННІ МОТИВАЦІЇ ДО НАВЧАННЯ СТУДЕНТІВ-СТОМАТОЛОГІВ

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На сучасному етапі основним завданням вищої школи є підвищення якості підготовки конкурентоспроможних спеціалістів, що є неможливим без формування у них позитивної мотивації у майбутній професії [2]. Третій курс є надзвичайно важливим, зокрема, для студентів-стоматологів з точки зору формування позитивного ставлення до майбутньої професії, оскільки студенти вивчають терапевтичні дисципліни, посилюється їх інтерес до самовдосконалення та всебічного розвитку. Працюючи зі студентами на практичних заняттях, викладач повинен пам'ятати, що розвиток мотивації можливий лише тоді, коли є потреба в самовдосконаленні, самореалізації та самовираженні. Значну роль у