МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ`Я УКРАЇНИ ВИЩИЙ ДЕРЖАВНИЙ НАВЧАЛЬНИЙ ЗАКЛАД УКРАЇНИ БУКОВИНСЬКИЙ ДЕРЖАНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

МАТЕРІАЛИ

науково-практичної інтернет-конференції

РОЗВИТОК ПРИРОДНИЧИХ НАУК ЯК ОСНОВА НОВІТНІХ ДОСЯГНЕНЬ У МЕДИЦИНІ



м. Чернівці 27 листопада 2019 року

УДК 5-027.1:61(063)

P 64

Медицина є прикладом інтеграції багатьох наук. Наукові дослідження у сучасній медицині на основі досягнень фізики, хімії, біології, інформатики та інших наук відкривають нові можливості для вивчення процесів, які відбуваються в живих організмах, та вимагають якісних змін у підготовці медиків. Науковопрактична інтернет-конференція «Розвиток природничих наук як основа новітніх досягнень у медицині» покликана змінювати свідомость людей, характер їхньої діяльності та стимулювати зміни у підготовці медичних кадрів. Вміле застосування сучасних природничо-наукових досягнень є запорукою подальшого розвитку медицини як галузі знань.

Конференція присвячена висвітленню нових теоретичних і прикладних результатів у галузі природничих наук та інформаційних технологій, що ϵ важливими для розвитку медицини та стимулювання взаємодії між науковцями природничих та медичних наук.

Голова оргкомітету

професор, д.фіз.-мат.н. *Федів В.І.*, завідувач кафедри біологічної фізики та медичної інформатики Радою ВДНЗ України «Буковинський державний медичний університет»

Оргкомітет

доц., к.тех.н. *Бірюкова Т.В.*, доцент кафедри біологічної фізики та медичної інформатики ВДНЗ України «Буковинський державний медичний університет»

доц., к.фіз.мат.н. *Іванчук М.А.*, доцент кафедри біологічної фізики та медичної інформатики ВДНЗ України «Буковинський державний медичний університет»

доц., к.фіз.мат.н. *Олар О.І.*, доцент кафедри біологічної фізики та медичної інформатики ВДНЗ України «Буковинський державний медичний університет»

Почесний гість

Prof. Dr. Anton Fojtik, Faculty of Biomedical Engineering, Czech Technical University, Prague, Czech Republic; Institute for Nanomaterials, Advanced Technologies and Innovation, Technical University of Liberec, Czech Republic

Розвиток природничих наук як основа новітніх досягнень у медицині: матеріали науково-практичної інтернет-конференції, м. Чернівці, 27 листопада 2019 р. / за ред. В. І. Федіва — Чернівці: БДМУ, 2019. — 390 с.

У збірнику подані матеріали науково-практичної інтернет-конференції «Розвиток природничих наук як основа новітніх досягнень у медицині». У тезах представлені результати теоретичних і експериментальних досліджень.

Матеріали подаються в авторській редакції. Відповідальність за достовірність інформації, правильність фактів, цитат та посилань несуть автори.

Для наукових та науково-педагогічних співробітників, викладачів закладів вищої освіти, аспірантів та студентів.

Рекомендовано до друку Вченою Радою ВДНЗ України «Буковинський державний медичний університет» (Протокол №4 від 28.11.2019 р.)

ISBN 978-966-697-840-3

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
MINISTRY OF HEALTH OF UKRAINE
HIGHER STATE EDUCATIONAL ESTABLISHMENT OF UKRAINE
"BUKOVINIAN STATE MEDICAL UNIVERSITY"

CONFERENCE PROCEEDINGS

DEVELOPMENT OF NATURAL SCIENCES AS A BASIS OF NEW ACHIEVEMENTS IN MEDICINE



Chernivtsi, Ukraine November 27, 2019

UDC 5-027.1:61(063)

P 64

Medicine is an example of the integration of many sciences. Scientific research in modern medicine, based on the achievements of physics, chemistry, biology, computer science and other sciences, opens new opportunities for studying the processes occurring in living organisms and requires qualitative changes in the training of physicians. Scientific-practical Internet conference "Development of natural sciences as the basis of the latest achievements in medicine" aims to change the consciousness of people, the nature of their activity and stimulate changes in the training of medical personnel. The skillful application of modern scientific achievements is the key to the further development of medicine as a field of knowledge.

The conference is dedicated to the coverage of new theoretical and applied results in the field of natural sciences and information technologies, which are important for the development of medicine and stimulating interaction between scientists of natural and medical sciences.

General Chairman of the Conference

Prof, Dr. **Volodymyr Fediv**, chief of the Department of Biological Physics and Medical Informatics at Higher state educational establishment of Ukraine "Bukovinian State Medical University"

Programme committee

Ass.prof., PhD **Tetjana Birukova**, Department of Biological Physics and Medical Informatics at Higher state educational establishment of Ukraine "Bukovinian State Medical University"

Ass.prof., PhD Maria Ivanchuk, Department of Biological Physics and Medical Informatics at Higher state educational establishment of Ukraine "Bukovinian State Medical University"

Ass.prof., PhD **Olena Olar**, Department of Biological Physics and Medical Informatics at Higher state educational establishment of Ukraine "Bukovinian State Medical University"

Invited lecturer

Prof. Dr. Anton Fojtik, Faculty of Biomedical Engineering, Czech Technical University, Prague, Czech Republic; Institute for Nanomaterials, Advanced Technologies and Innovation, Technical University of Liberec, Czech Republic

Development of Natural Sciences as a Basis of New Achievements in Medicine: Conference Proceedings, November, 27, 2019, Chernivtsi, Ukraine/ edited by V.Fediv – Chernivtsi, BSMU, 2019. – 390 p.

The proceeding contains materials of a scientific and practical Internet conference "Development of the natural sciences as the basis of the latest achievements in medicine" which present the results of theoretical and experimental studies

Papers are submitted by the author editing. The authors are responsible for the accuracy of the information, the correctness of the facts, quotations and references.

For scientific and scientific-pedagogical staff, teachers of higher education institutions, graduate students and students.

ISBN 978-966-697-840-3

INNOVATIVE TECHNOLOGIES IN THE PROFESSIONAL TRAINING OF MEDICAL EXPERTS

Rusnak V.F.

Higher state educational establishement of Ukraine «Bukovinian State Medical University»

Chernivtsi, Ukraine

vitaliirusnak1277@gmail.com

Abstract. The word "technology" has come into teacher of industrial production, where it means the process of manufacturing products in the most efficient and economical way. It should be noted that in pedagogical practice, often the terms "pedagogical technology" and "educational technology" are synonymous, although the second in its meaning is broader because it can include various related aspects (psychological, economic, social). An essential part of the pedagogical process is the practice-oriented interaction of the teacher with the students. The importance of science in the development of pedagogical technologies accompanying the level of social knowledge is increasing. The most important changes in the social system nowadays concern education, which is modified in order to meet the consequences of the innovative requirements of society.

Key words: science, distance learning, innovative technologies.

The active use of modern educational technologies ensures the quality and efficiency of the educational process. Boys and girls, when studying in higher education and vocational colleges of education, are faced with the fact that speaking at scientific conferences, defending various projects, coursework and final qualifications, they experience some difficulties, namely not being able to properly submit and convey the material. Therefore, it is very important to educate students through special means to bring information to the students' minds, to reasonably state their position, opinion, point of view. It is also very important to prepare graduates for writing a text about themselves during the employment phase. But all this is envisaged by educational technology [1]. An essential part of the pedagogical process is the practice-oriented interaction of the teacher with the students. The importance of science in the development of pedagogical technologies accompanying the level of social knowledge is increasing. The most important changes in the social system nowadays relate to education, which is modified to meet the innovative requirements of society.

Global changes in various spheres of modern society: information, communication, professional - necessitate a change in the methodological, technological and meaningful aspects of the educational revision of priorities, pedagogical means and target installations. At present, the principle of variability is actively used in professional education, which gives teachers of educational institutions the opportunity to design, carry out the educational process on different models, including the author's. In this direction, there is also progress in higher education: the development of various options for its content, transformational changes in the potential of modern teacher to increase the effectiveness of educational structures, scientific development and implementation of modern methods and technologies [2]. It is understandable that the increased interest of modern scholars in pressing issues concerning the development of innovative educational technologies of influence on the individual and the ways of their effective and optimal use in the educational process of higher education. It emphasizes not only the essence of educational technology, its content, but also the possibility of qualitative information transfer, experience of the teacher, that is, possession of innovative technologies of teaching and teaching material. It is educational innovative technologies of teaching and teaching in higher education that are one of the main tools of the teacher's activity, which in addition to multidimensional knowledge of its subject must be scientifically accessible and interesting to present educational material for students. Innovative educational technologies for teaching and teaching in provide an answer to one of the most important issues in the educational process: how, how to present, transfer new knowledge and to create conditions for mastering, acquisition of the program, curriculum of students' skills and capability [3].

One of the important problems in the modern university education is the problem of student-oriented practical training. The multifaceted practice of student-oriented training in higher education requires a variety of approaches to its study. The results of most studies have confirmed that the use of interactive methods is an effective way of learning, which will facilitate the optimal absorption of new and consolidation of passed material. A paramount role in achieving the set goals is played by a practically oriented approach in teaching [4]. Thus, although there is no single approach in the definition of the terms "pedagogical technology" and "educational technology" in the domestic and foreign psycho-pedagogical literature, they are all valuable for practice and science by revealing different sides of the holistic pedagogical process and orienting the employees of different educational orientations. technological models of training and education [5]. The results of the analysis of pedagogical literature, dissertations on the problems of competency formation, as well as personal practical experience suggest that the purposeful formation can be

realized through the implementation of various types of educational activities: the use of training method to immerse students in the professional and creative environment, diverse in composition of vocationally oriented tasks, as well as involving students in progressively complicated work, the development of creative and critical thinking students during the implementation of different non-standard vocational cases, tasks, organization of out-of-class work of students, which takes into account the personal preferences of students, which implies the implementation of an individual approach to each of them [6].

The leading point of the technological approach to the construction of the learning process is the design of the goals and objectives of the training course. Among the different approaches to defining a hierarchy of learning goals is the taxonomy developed by a group of American scientists under the leadership of BS Bloom in the cognitive sphere. In the process of mastering knowledge, the taxonomy of B.S. Bloom distinguishes the six levels at which individual cognitive processes occur. The authors sought to cover as accurately and fully as possible all categories of intellectual activity [7].

The set of methods and technical means of accumulation, organization, storage, processing, transmission and dissemination of information enhances students' knowledge and develops their ability to solve technical and social problems [8].

References

- 1. Andriyenko O.A. Sovremennyye obrazovatel'nyye tekhnologii: tekhnologiya samoprezentatsii. Balkansko nauchno obozreniye. 2019. T. 3. № 1(3). S. 5-7.
- 2. Yegorova Ye.N. Sovremennyye pedagogicheskiye tekhnologii kak ob"yektivnaya potrebnost'. Obshchestvo, sotsiologiya, psikhologiya, pedagogika. 2016. №3. S. 61-63.
- 3. Koshechko N. Ínnovatsíyní osvítní tekhnologíí navchannya ta vikladannya u vishchíy shkolí. Pedagogíka. №1(1). 2015. S. 35.
- 4. Bakhmetova YU.N., Yegorova Ye.N. Interaktivnyye metody obucheniya studentov kak chast' praktiko-oriyentirovannogo podkhoda v obrazovanii. Kul'tura i obrazovaniye. 2014. № 3 (54). S. 61-63.
- 5. Khom'yak A. Pedagogíchna tekhnologíya yak íntegrativna model' navchal'no-vikhovnogo protsesu. Molod' í rinok 2014. №9 (116). S. 44-49.
- 6. Valeyeva N.SH., Frolova F.F. Tekhnologiya formirovaniya kompetentsii professional'nogo samorazvitiya u studentov. Kazanskiy pedagogicheskiy zhurnal. 2019. №1. S. 75-80.
- 7. Antonova O.Ê. Pedagogíchní tekhnologíí ta íkh klasifíkatsíya yak naukova problema. Suchasní tekhnologíí v osvítí. CH.1. Suchasní tekhnologíí navchannya: nauk.-dopom. bíblíogr. pokazhch. Vip.2. 2015. S. 8-15.
- 8. Polzikova N. B. Sovremennyye obrazovatel'nyye tekhnologii. Nauchno-metodicheskiy elektronnyy zhurnal «Kontsept». 2017. T. 25. S. 232–234. URL: http://e-koncept.ru/2017/770565.htm.