

## ANNOTATION

Of the dissertation for getting the academic degree of Doctor Philosophy  
(PhD) in specialty 6D011000 - Physics

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### **Methodology of professional approach of teaching physics at the medical universities**

Production and economic relations in the field of competition contributes to the emergence of competition in the labor market, strengthen professional training requirements. Future trends in the modernization of education experts, including quality education, high mobility professional, scientific and technical and professional knowledge up-to-date information on their own orientation requires updating constantly.

Innovation at the level of higher education that meets the requirements of the modern economy, skilled and competitive training special attention is paid to the quality of education to consider new ways of teaching.

#### **The actuality of research**

The future of professional education in the direction of their professional competence, self-education training, formation of social and professional mobility.

Aimed at improving the level and quality of education in the global education space, positive trends in the development of new approaches to education as a tool for the formation of human capital and the expansion of the concept of quality of education. In this regard, the President of the Republic of Kazakhstan Nursultan Nazarbayev this year, "The third revival: the Global Competitiveness", to raise the issue of improving the quality of human capital, education requires the need to make a new model of economic growth, the central generation

In general, the higher education system was established in the context of research and teaching are closely connected with each other on a regular basis, one of the goals are based on the trends. These trends are fundamental, basic and clinical scientific knowledge, armed with knowledge of theoretical knowledge and professional skills in the specialty, as well as research and development activities aimed at training to improve self-knowledge professionals who are used to and it is a precondition for the training of future professionals. Read the medical institution of higher education can be done through the teaching of physics.

The main purpose of medical universities studied physics and the problem of the high standards of the medical qualifications of medical education based on the description of the programs and special clinical disciplines. In these programs, the future doctors of medical physics in accordance with the fundamental laws and regulations, physical factors, the ability to impact the human body, and their use of diagnostic and therapeutic clinical laboratory equipment and working knowledge of the actions of physics as a main course.

Modern medicine is now seen as determining the cause of the symptoms and destroy it, as well as a multi-step process, consisting of diagnostic and therapeutic

processes. This process consists of basic steps: collection of clinical data, their analysis, decision-making and treatment. In most cases the doctor to determine the cause of the disease and its treatment, along with his knowledge and experience, based on the factors in accordance with modern diagnostic and therapeutic medical equipment and a variety of modern physical therapy, without which it is not possible to provide modern doctors without medical devices. According to the study of foreign scientists, doctors, regardless of their level of education and skills is based on 25-45% of the medical equipment data in the diagnosis and treatment. According to the research of scientists from Russia, 80% of patients in the hospital, 60% of patients in out-patient treatment, all receiving treatment in sanatoriums in need of medical equipment for physiotherapy. Thus, medical diagnostic and therapeutic measures are related to the information received from medical devices, and in need of them, ie, medical equipment has a special place in medical facilities, in medical training, educational and scientific research, even in other areas of medicine. Following this case, the medical students of higher educational institutions do not formally teach "Physics", and it is necessary to pay attention to the link between diagnostic and medical equipment based on physical phenomena and clinical subject taking place in the senior years.

General requirements for the physical development of higher education in the field of medical physics at the university to identify the main objectives of the course are as follows:

- to ensure the students' level of education and cultural development;
- the actions of the following special training courses and professional training to provide basic training;
- continuous self-education required for the physical material to work on their own skills development.

This complex solution of the tasks of the future's an opportunity to clarify the actions of the physical education professional.

Preparation of future specialists professional direction provided by the various branches of science. The study of the phenomenon of sociology and philosophy teaching G.A.Juravleva, S.I.Arhangelskiy, O.V.Ledneva etc. works to disclose relations value.

Psychological studies (S.L. Rubinstein, B.G. Anan'iv, L.I. Bojovic, V.N Myasichev, etc.) discovered the mechanism of formation of a professional orientation of the person.

Teaching (G.K. Ahmetova, Z.A.Isaeva, Sh.T.Taubaeva, I.Y. Fastovec, Y.K. Babanskiy, A.M. Novikov, A.V. Slastenina, etc.) of the person the intellectual capacity of a theory of its focus on professional development. In addition, the formation of the future of professional quality, educational didactic Kazakhstan scientists identify key actions A.E.Abylkassymova, P. Seyteshov, T.S.Sadykov, G.K. Smagulova, S.A. Zholdasbekova, Z.K. Bekturova, B.K. Mominbaev etc. can be called research. to build a different future professional orientation A.A. Karibayeva, A.T.Duysebek, L.A. Shkutina, S.Zh. Piraliev, etc. works on the teaching of physics and D.V. Babayev, Q.M.Muqashev, A.Ch. Omaraliev, W.Q.

Tokbergenova, J.A. Kurmanalieva, A.B.Kenjebekov, S.D.Muqanova, Sh.Sh.Qarbaeva, T.A.Aldibaeva, Q.A.Jumagulova works.

The direction of future doctors professional researchers N.M. Amosov, LA Zilber, etc. Well, S.D. Karakozova K.S.Shadinova, V.S. Kagermanyanyan, U.A. Bayzak defined the role of the medical and engineering physics; During the teaching of physics students majoring in medicine professional research on the formation of K.A. Adshirin-zade, M.A. Palcev, N.G. Arzumanyan, A.N. Biryukova, E.A. Ryazanova etc. in the works; actions of design and function, the scientists analyzed the role and place of A.S. Bychkova, E.S. Polat, A.I. Savenkov, E. Rumbeshta etc. Scientists analyzed; A.V. Tarasova, P.G. Kravchun, V.N.Lesovoy etc. conducted research in the context of the professional training of doctors and scientists.

Analyzing these scientific papers and studies, to date, the medical institutions of higher education teaching physics didactic training and physical activities in connection with the determination of the content of future medical and methods of organization of the educational process that takes into account the specific features are still not convinced of the need to find solutions. We have a medical survey of university students found the questions. Students of physics could not say why the need for a future profession. He taught physics course in the first year of training in specific disciplines to determine that there is no connection.

The study of physics to improve the teaching of physics work on the technical content of medical equipment for the further development and implementation of the actions identified the need to find effective ways to. In this regard, the physical education programs complement and expand the content of education, classification.

However, these issues have theoretical and practical physics and medical physics at the university in the absence of specialized studies to develop a method of teaching guidelines and the training of future professionals there is a contradiction between the need for readiness.

And a proportion of those contradictions solved the problem of the formation of future medical university professional training. Theoretically, the study determines the relevance of our research.

**Aim of research** - Medical theoretical methods of teaching physics at university.

**Object of research** - training of physics at medical university.

**The subject of research** the content and methods of physics to medical specialties.

**Research objectives:**

- determination of the content of physical education at medical schools;
- selection of key points related to physical education, medicine and theoretical study;
- medical direction of teaching physics, to test its effectiveness.

**Methods:**

- research on the issues of philosophical, psychological, educational, methodical and medical literature, as well as on the subject of physics concept,

education standards, educational programs, textbooks and teaching aids, theoretical analysis;

- control questionnaires, interviews, analysis;
- and identify the learning experiments.

**The theoretical basis of the study:** research on the issues of philosophical, psychological, educational, medical and methodological papers; medical physics at the university methodological foundations and teaching methods.

**The novelty of the research:** medical school physical education is important with respect to the contents of the medicine based on selected sections of the theoretical; developed methods of teaching physics and medicine, "medical specialties Physics" elective subjects offered.

**The protection provided by the rules:**

- medical students majoring in physical education to increase their level of physical training and knowledge for the use of future actions;
- selection of key points related to physical education, medicine and theoretical study of students in medical decision-making professional organization of medical services in the future;
- methods of teaching physics students of medical specialties and professional direction is provided by the use of future actions.

**The theoretical significance of the study**

Scientific research:

- the creation of the theory of teaching students majoring in medicine;
- on special subjects taught in medical institutions of higher education physical education is an important part of selection;
- the physics of how effective teaching methods, forms and characterized by means of identification.

**The practical significance of the study**

According to the research, medical and physical tasks to consolidate the theoretical knowledge content test questions for students to work independently, creatively prepared by the laboratory for study and practical work. As well as "medical specialties Physics" and the work program of the elective course "Medical physics tests and reports a set of" guidelines developed and introduced in the educational process.

The results of the research work of the medical institutions of higher education, vocational education, teacher professional training and skills development in the direction of the system can be widely used.

**Research base:** Medical Faculty, the International Kazakh-Turkish University named H.A.Yasavi.

**Approbation of research results:**

According to the thesis published 18 scientific papers. Education Ministry of Education and Science of the Republic of Kazakhstan in the field of science and scientific journals provided by the Organizing Committee – 3, Scopus, Thomson Reuters (ISI Web of Knowledge, Thomson Reuters) with non-zero impact factor - 2, Proceedings of the International Conference – 9.

