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СЕКЦИИ:

| СОДЕРЖАНИЕ | CONTENT | Pag |
|---|--|-----|
| I. ОСОБЕННОСТИ ВЫСШЕГО МЕДИЦИНСКОГО ОБРАЗОВАНИЯ В НОВОЙ РЕАЛЬНОСТИ | I. FEATURES OF HIGHER MEDICAL EDUCATION IN A NEW REALITY | 17 |
| II. ФОРМИРОВАНИЕ НАЦИОНАЛЬНОЙ МОДЕЛИ ОБРАЗОВАНИЯ: ВОПРОСЫ КАЧЕСТВА ОБРАЗОВАНИЯ, ИННОВАЦИИ И ПЕРСПЕКТИВЫ | II. FORMATION OF A NATIONAL MODEL OF EDUCATION: ISSUES OF EDUCATION QUALITY, INNOVATION AND PROSPECTS | 132 |
| III. ДИФФЕРЕНЦИРОВАННЫЙ ПОДХОД К ФОРМИРОВАНИЮ ПРОФЕССИОНАЛЬНЫХ КОМПЕТЕНЦИЙ В МЕДИЦИНСКОМ ОБРАЗОВАНИИ | III.A DIFFERENTIATED APPROACH TO THE FORMATION OF PROFESSIONAL COMPETENCIES IN MEDICAL EDUCATION | 276 |
| IV. ИННОВАЦИОННЫЕ МЕТОДЫ ОБУЧЕНИЯ ПРИ ПОДГОТОВКЕ СПЕЦИАЛИСТОВ С МЕДИЦИНСКИМ ОБРАЗОВАНИЕМ | IV. INNOVATIVE TEACHING METHODS IN TRAINING SPECIALISTS WITH MEDICAL EDUCATION | 359 |
| V. МЕЖДУНАРОДНЫЕ ПОДХОДЫ ОБЕСПЕЧЕНИЯ КАЧЕСТВА МЕДИЦИНСКОГО ОБРАЗОВАНИЯ – РЕЙТИНГ ВУЗОВ, МЕЖДУНАРОДНЫЕ АККРЕДИТАЦИИ, СОВМЕСТНЫЕ ОБРАЗОВАТЕЛЬНЫЕ ПРОГРАММЫ | V. INTERNATIONAL APPROACHES TO ENSURING THE QUALITY OF MEDICAL EDUCATION – RANKING OF UNIVERSITIES, INTERNATIONAL ACCREDITATIONS, JOINT EDUCATIONAL PROGRAMS. | 473 |

| | | |
|--|---|-----------|
| I. ОСОБЕННОСТИ ВЫСШЕГО МЕДИЦИНСКОГО ОБРАЗОВАНИЯ В НОВОЙ РЕАЛЬНОСТИ | I. FEATURES OF HIGHER MEDICAL EDUCATION IN A NEW REALITY | 17 |
| ЦИТОЛОГИК ТЕРМИНЛАРНИНГ ЎЗБЕК ТИЛИДАГИ МУАММО ВА ВАЗИФАЛАРИ. К.Д.Алимова | PROBLEMS AND TASKS OF CYTOLOGICAL TERMS IN THE UZBEK LANGUAGE. K.D.Alimova | 17 |
| ИСПОЛЬЗОВАНИЕ ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫХ ТЕХНОЛОГИЙ НА ЗАНЯТИЯХ ПО ПРЕДМЕТУ ХИРУРГИЧЕСКИХ БОЛЕЗНЕЙ ДЛЯ СТУДЕНТОВ СТОМАТОЛОГИЧЕСКИХ ФАКУЛЬТЕТОВ. С.Р.Баймаков, Ю.Ю.Шарипов | THE APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN TRAINING OF STOMATOLOGY DENTAL INSTITUTE STUDENTS. S.R.Baymakov, Y.Y.Sharipov | 21 |
| ЗНАЧЕНИЕ СИМУЛЯЦИОННЫХ ЦЕНТРОВ В РАЗВИТИИ ПРОФЕССИОНАЛЬНОЙ КОМПЕТЕНТНОСТИ У СТУДЕНТОВ МЕДИЦИНСКИХ ВУЗОВ. А.А.Ганиев, Н.Ш.Абдухалик-Заде | THE IMPORTANCE OF SIMULATION CENTERS IN THE DEVELOPMENT OF PROFESSIONAL COMPETENCE AMONG MEDICAL STUDENTS A.A.Ganiev, N.Sh.Abdukhaik-Zade | 28 |
| РОЛЬ И МЕСТО СОВРЕМЕННЫХ ОБРАЗОВАТЕЛЬНЫХ ТЕХНОЛОГИЙ В МЕДИЦИНСКОМ ВУЗе Раимова М.М., Ёдгарова У.Г., Маматова Ш.А., Ядгарова Л.Б. | ROLE AND PLACE OF MODERN EDUCATIONAL TECHNOLOGIES IN A MEDICAL UNIVERSITY M.M.Raimova, U.G.Yodgarova, Sh.A.Mamatova, L.B.Yadgarova | 33 |
| ТИББИЙ ТАЪЛИМ МУАММОЛАРИНИ ХАЛ ЭТИШДА ЎҚИТИШ ТЕХНОЛОГИЯЛАРИ. Н.Н. Каюмова, Ш.М. Хасанов., А.М. Азимов | TEACHING TECHNOLOGIES FOR SOLVING MEDICAL EDUCATION PROBLEMS. N.N.Kayumova, Sh.M.Khasanov, A.M.Azimov | 39 |
| ТАЛАБАЛАР МУСТАҚИЛ ИШЛАРНИ БАЖАРИШДА ЯНГИ ТЕХНОЛОГИЯЛАРНИ РОЛИ. Курбанова С.Ю., Шомуротова Р.К. | THE ROLE OF NEW TECHNOLOGIES IN THE PERFORMANCE OF INDEPENDENT WORK BY STUDENTS. S.Yu.Kurbanova, R.K.Shomurotova | 45 |
| ТЕСТИРОВАНИЕ-КАК ПЕРСПЕКТИВНЫЙ МЕТОД КОНТРОЛЯ УСВОЕНИЯ МАТЕРИАЛА. Курбанова С.Ю., Якубова Н.А., Жанабаева А.К. | TESTING AS A PROSPECTIVE METHOD FOR CONTROL OF MATERIAL ABSORPTION S.Yu.Kurbanova,N.A.Yakubova, A.K Janabaeva | 49 |
| МУАММОГА АСОСЛАНГАН ЎҚИТИШ-ТАЛАБАЛАРНИНГ ФИКРЛАШ ҚОБИЛИЯТИНИ ОШИРАДИ Курбанова С.Ю. | PROBLEM-ORIENTED EDUCATION PROMOTES STUDENTS THINKING ABILITY. S.Yu.Kurbanova | 51 |

| | | |
|--|--|-----------|
| МУАММОЛИ ТАЪЛИМ ПЕДАГО- ГИК ТЕХНОЛОГИЯСИНИ ЮҚУМ- ЛИ КАСАЛЛИКЛАР ФАНИНИ ЎҚИТИШДАГИ ЎРНИ Қосимов И. А., Халилова З.Т, Бурибаева Б.И. | THE ROLE OF PROBLEM EDUCATION IN TEACHING PEDAGOGICAL TECHNOLOGY IN THE SCIENCE OF INFECTIOUS DISEASES I.A.Kosimov, Z.T.Khalilova, B.I.Buribaeva | 54 |
| TIBBIYOT OLIY TA'LIM MUASSASALARIDA ZAMONAVIY METODLARDAN FOYDALANGAN HOLDA MA'RUZA VA AMALIY MASHG'ULOTLARINI O'TKAZISH Maxsudov V.G. | CONDUCTING LECTURES AND PRACTICAL CLASSES IN MEDICAL UNIVERSITIES USING MODERN METHODS V.G.Makhsudov | 58 |
| JARROHLIK KASALLIKLARINI O'ZLASHTIRISHDA MUAMMOLI O'QITISHNING ANAMIYATI. Mehmanov Sh.R. | THE VALUE OF PROBLEM- BASED TEACHING IN THE DEVELOPMENT OF SURGICAL DISEASES Mekhmanov Sh.R. | 64 |
| ОБЩИЙ ФУНДАМЕНТАЛЬНЫЙ ПРИНЦИП ПАРАДИГМЫ ГУМАНИЗАЦИИ В ВЫСШЕМ МЕДИЦИНСКОМ ОБРАЗОВАНИИ Мухамедова З.М. | THE GENERAL FUNDAMENTAL PRINCIPLE OF THE HUMANIZATION PARADIGM IN HIGHER MEDICAL EDUCATION Z.M.Mukhamedova | 71 |
| BIOFIZIKA FANINI O'QITISHDA FIZIK VA TIBBIY BILIMLAR INTEGRATSIYASI ASOSIDA TALABALARNING FIKRLASH JARAYONINI RIVOJLANTIRISH K.R.Nasriddinov, D.Z.Xodjayeva | DEVELOPMENT OF STUDENTS ' THINKING PROCESS ON THE BASIS OF INTEGRATION OF PHYSICAL AND MEDICAL KNOWLEDGE IN THE TEACHING OF BIOPHYSICS. K.R.Nasriddinov, D.Z.Xodjayeva | 77 |
| СИМУЛЯЦИЯ-ТИББИЁТ УНИВЕР- СИТЕТИ ТАЛАБАЛАР ВА МАГИС- ТРАРИНИ ЎҚИТИШНИНГ ЯНГИ УСУЛИ Парпиева М.С | SIMULATION - A NEW METHOD OF TEACHING STUDENTS AND MASTERS OF A MEDICAL UNIVERSITY M.S.Parpieva | 80 |
| СОВРЕМЕННЫЕ ПОДХОДЫ К ОБУЧЕНИЮ СТУДЕНТОВ МЕДИЦИНСКОГО ВУЗА ПО ДИСЦИПЛИНЕ «НЕВРОЛОГИЯ» Раимова М.М., Маматова Ш.А., Ёдгарова У.Г., Чориева Ф.Э. | MODERN APPROACHES TO TEACHING STUDENTS OF A MEDICAL UNIVERSITY ON THE DISCIPLINE "NEUROLOGY" M.M. Raimova, Sh.A.Mamatova, U.G.Yodgorova, F.E.Chorieva | 85 |
| ТЕОРЕТИЧЕСКИЕ ОСНОВЫ ПРОФЕССИОНАЛЬНОГО ВОСПИ- ТАНИЯ В МЕДИЦИНСКОМ ВУЗЕ Сирожиддинова З.М. | THEORETICAL BASIS OF PROFESSIONAL EDUCATION IN A MEDICAL UNIVERSITY Z.M.Sirozhiddinova | 90 |
| FEATURES OF TEACHING PHYSICS AT THE MEDICAL UNIVERSITY. Abdujabbarova U.M., Ubaydullaeva V. P., Sobirjonov A.Z. | FEATURES OF TEACHING PHYSICS AT THE MEDICAL UNIVERSITY. Abdujabbarova U.M., V. P.Ubaydullaeva, A.Z.Sobirjonov | 95 |

Воспитательный потенциал медицинского вуза обеспечивается и углубляется признанием необходимости дальнейшего повышения статуса и необходимости профессионального воспитания студентов в медицинском вузе, созданием современного педагогического обеспечения воспитательного процесса.

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FEATURES OF TEACHING PHYSICS AT THE MEDICAL UNIVERSITY

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Annotation: It is known that physics is the basis of the general education of any specialist in the medical field. Therefore, physics is being introduced into medicine at an accelerated pace. In the article, the authors indicate the importance of this subject and explain the originality of the approach to teaching physics. It is emphasized that the competence of the teacher and methodological approaches in presenting the material, trusting, equal, respectful attitude towards students, the dialogue of the teacher with students and the presence of feedback are of great importance.

Keywords: Competence, physics, methodology, medicine, integration

Аннотация: Известно, что физика - это основа общего образования любого специалиста в области медицины. Поэтому физика внедряется в медицину ускоренными темпами. В статье авторы указывают на важность этого предмета и объясняют оригинальность подхода к преподаванию физики. Подчеркивается, что компетентность преподавателя и методические подходы в изложении материала, доверительное, равноправное, уважительное отношение к ученикам, диалог учителя с учениками и наличие обратной связи имеют большое значение.

Ключевые слова: компетентция, физика, методология, медицина, интеграция.

Annotatsiya: Ma'lum-ki, fizika har qanday tibbiyot sohasidagi mutaxassisning umumiy ta'lim asosi hisoblanadi. Shuning uchun fizika tibbiyotga jadal sur'atlar bilan kiritilmoqda. Maqolada mualliflar ushbu fanning muhimligini ta'kidlab, fizika o'qitishga yondashuvning o'ziga xosligini tushuntiradilar. Materialni bayon etishda o'qituvchining malakasi va uslubiy yondashuvlari, o'quvchilarga ishonchli, teng, hurmatli munosabatda bo'lishi, o'qituvchining o'quvchilar bilan mulqoti, fikr-mulohazalarning mavjudligi katta ahamiyatga ega ekanligi ta'kidlanadi.

Kalit so'zlar: kompetentsiya, fizika, metodologiya, tibbiyot, integratsiya.

Physics is one of the most dynamically developing sciences. In the last few decades alone, a huge number of physical discoveries of the highest level have been made. This is connected, on the one hand, with the emergence of new powerful theoretical concepts and methods, and on the other, with the rapid development of experimental techniques based on the use of fundamentally new scientific instruments, methods and technologies.

The competencies of a graduate of any higher educational institution should allow him to successfully work in his chosen professional field, acquire social, personal and general cultural qualities that contribute to his social mobility and stability in the labor market. In solving this problem, an important role belongs to the course of physics.

The professional formation and development of students receiving the profession of a doctor at a medical university is associated with the study of fundamental sciences and natural sciences. In this regard, physics as a science and an educational module within the framework of the integrative academic discipline "Physics" provides a fundamental (basic) training of a future medical specialist and is the basis for the development of professional disciplines by students of a medical university.

Physics is the basis of a specialist's general education. It has a number of features that allow students to develop logic, rationality and systematic thinking. Students of medical universities need physics for the formation of basic ideas about the functioning of the systems of the human body and for the meaningful application of these ideas in future medical practice. Physics is being introduced

into medicine at an increasingly accelerated pace: laser surgery, ultrasound examination of soft tissues, magnetic resonance imaging, X-ray diagnostics, operations using a gamma scalpel, etc.

The reliance on physical laws allows the future doctor "Innovative methods of teaching physics at the university" to explain physiological processes, establish a diagnosis and choose the right treatment. Mastering a physics course should precede the study of anatomy, physiology, biochemistry, microbiology and virology, hygiene, radiation diagnostics, etc. But, unfortunately, first-year students are not able to fully understand the importance of physics knowledge for the future practical activities of a doctor. In this regard, it is necessary to increase the motivation of students to study a physics course. The teacher's justification of the interdisciplinary connections of physics with clinical disciplines will allow the freshman student to see the value of the acquired knowledge in physics for the study of clinical disciplines. Thus, in the educational process of a medical university, the implementation of integrative-modular teaching of physics is supposed.

Classes at a medical university are conducted according to a modular system. Each module consists of two to three laboratory and / or practical works on related topics. Each laboratory or practical work contains all the components of the educational cycle: the goal, tasks, necessary instruments and equipment, objects of research, an algorithm for performing the work, a list of used and additional literature, as well as test tasks (tests). With the help of testing, diagnostics of the level of training of students, control of educational achievements is carried out. Testing allows you to judge the effectiveness of the learning process and make changes to improve the content of the physics course modules, as well as their methodological support. A set of requirements for knowledge, skills and abilities has been developed for each module. It should be noted that physical and medical equipment is used to carry out laboratory work. Using physical devices, students study the mechanisms of various phenomena and physical laws in individual branches of physics. These are the laws of mechanics, geometric and physical optics, acoustics, hydrodynamics and hemodynamics, electrical phenomena and the laws of thermodynamics, the laws of interaction of radiation with matter, the transformation of one type of energy into another, radioactivity and dosimetry, etc. Of course, in physics classes in a medical institution, the emphasis is on the use of medical equipment. Medical equipment is used to train the skills of working in an atmosphere close to real clinical practice. Lectures are held for each section of physics. The number of lecture hours for medical and medical-diagnostic faculties is different, limited by the curriculum, but not enough for a detailed presentation of the material. For self-study, students are offered an electronic methodological guide. There are a number of methodologically and scientifically grounded provisions in the study of any subject, including physics in a medical university: - the competence of the teacher and methodological approaches in the presentation of the material; -

trusting, equal, respectful attitude towards students; - dialogue between the teacher and students and the availability of feedback.

The features of successful mastering of physics at a medical university are: - the realization that man is a part of nature, and the laws of physics are fulfilled for him; - justification for students of the need for knowledge in physics for further study of clinical disciplines and motivation of students to study the course of physics; - the use of both physical and medical equipment when performing laboratory work; - an increase in the number of lecture hours; - an increase in the number of practical and laboratory hours; - application of mathematical methods, introduction to the physics course of differential and integral calculus; - return to the knowledge assessment system in the form of a test and an exam; - the study of physics at a very serious level.

Physics at a medical university is not a major subject, but it is important in the life of any person. Physics shapes the worldview, gives us knowledge about the environment and helps shape the spiritual image of a person. Currently, diagnostic studies of varying degrees of complexity and the safest surgical interventions can be carried out only with the use of modern technical devices developed and maintained by physicists. The physician must understand the physical laws and principles that underlie the operation of medical equipment and correctly interpret the results of diagnostic tests. Thus, in the formation of a modern concept of teaching physics in higher medical educational institutions, it is necessary to focus on the ultimate goal - the training of highly qualified specialists who have deep knowledge and who can creatively approach problem solving.

Modern trends in the transformation and improvement of the higher education system imply not only the search for new methods and forms of organizing the educational process at the university, but also the identification of psychological and pedagogical conditions for the adaptation of students in the process of teaching them the basics of physics, contributing to the development of their personal qualities and the ability to educational and cognitive , creative activity.

The interaction between medicine and physics makes it possible to study the nature of physical processes, the causes of pathologies and acquire skills in working with medical equipment. The physics course, along with the fundamentals, has a medical focus, is integrated with clinical disciplines, which is a powerful motivation for students to study physics. Physics and medicine are closely related sciences: many of the most important discoveries in the field of physics were made by doctors. It is at the junction of sciences that the most amazing discoveries take place.

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**МИКРОБИОЛОГИЯ ФАНИДА МУСТАҚИЛ ИШЛАРНИ ТАШКИЛ
ЭТИШ ВА ЎТКАЗИШДА ИННОВАЦИОН ПЕДАГОГИК
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Аннотация. Давлат таълим стандартларини амалга ошириш ўқув жараёнини ташкил этишнинг янги шакллари кидиришни белгилаб беради, унда талабаларнинг мустақил ишини ролини доимий равишда оптималлаштиришни кучайтириш назарда тутилган. Талабаларнинг мустақил ишининг роли, аҳамияти ва нисбати ҳақида янги тушунчани таклиф қилади ва мустақил иш вазифаларини тушуниш учун асосий