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Some Issues of Integrated Teaching of Fundamental Sciences in Higher Technical Education

Odilbay Khimmatkulov
Tashkent State Technical University

Abstract: *Some issues of teaching fundamental natural sciences with the help of integrative technologies in higher technical educational institutions are highlighted. Within the framework of physical science, there are opportunities to explain some phenomena through general approaches, laws and imaginations. As a result of an integrative and systematic approach to the study of natural phenomena, the knowledge obtained by students will be complete and perfect, it is emphasized that it is possible to ensure the growth of their creative abilities.*

Keywords: *integrative concept, systematic approach, pedagogical technology, synergetic imagination, physical field, uncertainty principle, electromagnetic wave, relativistic mechanics.*

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INTRODUCTION. The development of the modern education system should be implemented through systematic knowledge and approaches necessary for the integrity and systematicity of scientific thinking, worldview. Such knowledge fundamental , technique and humanitarian sciences integration based on taken can Various sciences, methods integration based on present time education The universe whole to know and of the person creative opportunities to increase help gives Man , nature and of society necessary cooperation education in the environment branched scientific knowledge of integration the most according to ways looking for to find requirement does Integration trend almost all in the fields of economy , science , technology, social and etc in the y directions is being observed . This process education field too aside did not pass**.**

MAIN PART. The development of modern sciences is characterized by the rapid increase in the amount of knowledge to be acquired, the flow of information. High technologies are entering production, science, technology, medicine and other fields with rapid images. Specialists working in such conditions should have a wide range of modern fundamental, technical and social knowledge, practical skills, systematic analysis and observation skills. Education of modern specialists requires radical reform of educational institutions, application of advanced pedagogical technologies, ideas, and experiences to the learning process. Modern informational, integrative, modular, distance learning, interactive technologies, problem-based and programmatic methods of education are used in the learning process. Information technologies are entering the field of education very quickly, because the role of modern computers in the collection of large amounts of information, processing, presentation of visual materials, modeling of real processes and solving other didactic issues is very large. Integrative technologies of education play an important role in the process of generalization, systematization of the acquired knowledge and, as a result, a holistic perception of the essence and solution of the problem. At present, it can be noted that integrative-pedagogical concepts have emerged, which are a set of systematic thoughts and ideas that determine the content and direction

of integrative pedagogical activity that fulfills the goals and tasks of education and upbringing to some extent. Examples of these are the integrative concept of pedagogical knowledge within a particular subject, the concept of synthesis of didactic systems, the integrative concept of general and professional education, the concept of integration of the content of general and professional education, the concept of stratification and integration of forms of educational organization, the integrative concept of higher education and fundamental sciences , etc. can be shown as

Integrative technologies require interrelationship, coherence, synthesis and commonality between certain subjects, activities, disciplines and methods. For example, it is possible to consider the trends of interrelationship, synthesis, and generalization between some phenomena, laws, their systematizing departments, and types of training that are studied separately within the framework of physics. It is known that the gravitational field, which is a means of gravitational interaction between all bodies, is studied separately in the department of mechanics, electrostatic, magnetic and changing electromagnetic fields in the department of electromagnetism, weak and strong fields of interaction are studied separately in the department of nuclear and elementary particle physics. After it was determined that there are common aspects characteristic of fields, for example, there are mechanisms of interaction, theories that unify them appeared. According to these theories, the enumerated fields are considered as separate manifestations of a single field. The department of mechanics, which studies the movement of matter at small and high speeds at the macro and micro levels, is conventionally divided into classical, relativistic and quantum mechanics. Classical mechanics is studied as a special case of relativistic mechanics within a certain limit, according to modern ideas. Heisenberg uncertainty principle of classical and quantum mechanics application borders clear lip gives In nature all linear in systems observable wave processes same rules based on Mechanical, electromagnetic and D e Broyle waves similar equations using is expressed and interpretation will be done . Moving processes similar equations and laws based on is explained . Out of balance far away in open physical systems harvest to be dissipative structures , e.g That's right cells , coherent laser radiation , turbulence and head _ events common synergistic imaginations using interpretation will be done . That's it similar examples many to bring can. Taking into account such integrative concepts observed within the framework of a separate subject during the educational process ensures that the knowledge acquired by students is complete and perfect, develops their creative abilities . As a result of the development and integration of natural sciences, new directions have appeared in the adjacent fields of these sciences. As a result of the application of cybernetics and physics research methods to biology at the border of physics and mathematics, astrophysics, cosmology and other sciences at the border of molecular biology, astronomy and physics have emerged and are developing rapidly. As a result, a very large amount of fundamental knowledge has been accumulated, which is not possible to acquire in the conditions of limited hours and loads allocated for subjects in educational institutions. Therefore, it is of great importance to include and teach integrative subjects such as "Scientific view of the universe" or "Modern concept of natural science" in higher technical educational institutions. Currently, the subject "Contemporary concept of natural science" is being taught, which was created for the humanitarian directions of higher technical educational institutions. It would be appropriate to organize the content of this subject in a more enriched and in-depth manner for technical areas. To do this, it is necessary to collect, systematize and summarize the knowledge obtained on the basis of the latest achievements of modern sciences in the form of single concepts and create modern training manuals and textbooks.

CONCLUSION. help to find new ways of modern education development that help to educate a multifaceted creative person who is not limited to a narrow range of knowledge, who can imagine the world as a whole, who can perform independent activities in the professional and social spheres. gives The application of integrative, systematic analysis technologies of teaching to the educational process allows students and pupils to generalize, systematize, and comprehensively understand the

essence and solution of the acquired knowledge. Attention and application of integrative concepts within the framework of a separate subject in the educational process ensures that the knowledge acquired by students is complete and perfect. develops their creative abilities.

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