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Development of Professional Competence of Students on the Basis of a Systematic Approach as the Theoretical Basis of Educational Integration in Higher Education Institutions

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Abstract: The socio-economic changes taking place in our country create new opportunities for reforming education on the basis of humanity, which requires the efforts of the whole society. Today, a person who is flexible, dynamic, able to live and work in new, constantly changing conditions, who not only perfectly knows his profession, but also a developing person is in demand in our society.

At the same time, it is necessary to take into account that modern civilization cannot be realized without relying on morally oriented intellect. Intellectual, spiritual and professional development of a person and self-development, including to students studying in the "Technological Machines and Equipment" bachelor's course of study at the faculty of "Engineering Technologies" at a higher educational institution (HEI) is done continuously.

Keywords: technique, integration, systematic approach, future engineer, educational system, pedagogical research, management system, future engineer, concept, general professional.

The main part. The trend of humanization of professional education leads to the emergence of new, high requirements for the quality of professional training of technical higher education graduates. The graphic knowledge and graphic culture of the future engineer is not only the result of training in the time specified in the component of the work program, but also the result of the efforts of all teachers in the general professional, natural-mathematical and special components.

With such graphic training, the graphic culture of the future engineer is formed: knowledge about the experience of such activity, mastering the methods of graphic activity in the field of engineering at the reproductive, creative and emotional-value level. Therefore, in the development of teaching models, the institution of higher education the teacher himself must have graphic knowledge, be able to solve the problem situations that constantly arise in the presentation of scientific and technical information in graphic form, because in this case the student develops intellectually and figuratively, and the valuable attitude of students to scientific knowledge is formed.

General and higher education institutions cannot stay away from the needs and demands of society, in which integration becomes a system-creating factor of society.

Integration as a scientific concept used in education cannot be considered separately from such concepts as "system", "systematic approach".

However, practice shows that teachers are used to empirical thinking and students are not inclined to see the theoretical foundations of the educational system in order to translate it into

the language of practice; they do not know how to create didactic materials adequate to this or that theory, and at best to transmit scientific information in various degrees of reduction and generalization. The Higher Education institution itself is mostly to blame for this, as it armed teachers with theoretical knowledge in the field of pedagogy and methodology, but until recently did not provide a mechanism for their practical application.

In the practice of the Higher Education Institution, the theoretical justification of the ideas of integration, the activities for the development of students in the teaching of engineering graphics should become a firmly mastered content of the teacher's pedagogical mind, his mentality, a paradigm of pedagogical thinking of all teachers.

Modernization of higher engineering education in the current period includes the harmonization of the content of education with the social order of society, and first of all, it requires teachers to know the education of students in higher education institutions as a whole system, its successful operation. cannot be implemented without taking into account the principles of humanization, integration and differentiation.

The requirements of modern society imply the humanistic nature of education, the priority of universal values, human life and health, and the free development of the individual.

Therefore, today the higher education institution is constantly searching for and updating all aspects of its activity, and the basis of this improvement is the understanding of the theoretical essence of the development and training of education by teachers, which can only be realized if it is understood.

Currently, there is an opinion in science that the field of knowledge that does not form a system cannot claim the name of science. Therefore, the education of the higher education institution, which is intended to convey the scientific view of the world to young people, should be systematic and recognized as a system by all participants of education.

The humanistic system is a system created in the process of human activity with a unique way of modeling the world as a person-like whole in the unity of consciousness and unconsciousness.

The educational system is such an education, the behavior of which is strongly influenced by the thoughts, feelings and emotions of a person, therefore it (the system) belongs to the humanities.

Pedagogical studies have noted that the range of objects of humanitarian systems is wide, among them there is a person and culture, and they model the interaction of the person in the social space and the world around him. And finally, man himself is a system.

The methodological and natural scientific basis for solving the studied problem is the achievements of modern science, and therefore we use its discoveries.

It is known that any human activity, human practice, can be successful if it corresponds to the laws of nature and society in a certain field of reality. A practice that contradicts the laws of nature and does not take them into account cannot be successful.

It is generally accepted that the laws of nature and society are revealed by science and constitute theory. There are different options in the ratio of practice and theory. Often practice relies on laws known to science and theoretically based and uses them for its own purposes. Sometimes practice intuitively searches for laws that are not yet clearly known by science. As human activity becomes more complex, working conditions and tools become more complex, and the role of theory inevitably increases.

At present, the significant impact of science on practice is ensured primarily by the development of large integrated theoretical concepts (information theory, systems theory).

The most important feature of modern education is that it is aimed not only at adaptation, but also at training specialists who can actively master the conditions of social changes. The main changes in the nature of education in the last decade include the following trends: continuity,

relevance for the individual, orientation to the active development of cognitive activity, adaptation to the needs of the individual, and the development of opportunities for self-discovery. Provide

The whole path of knowledge is the search for universality and individuality in precision. Objects, objects, events - for the student, everything exists separately, independently, without contact with each other. Any problem appears to the researcher as a collection of objects with different properties, like chaos. But time passes, and in the process of doing the work, the student discovers commonalities in previously seemingly disparate topics. Concepts arise as a generalization of a set of repeated, homogeneous events. For example, all objects in the graduation project are subject to one goal and are visually presented in the form of graphic images (drawings).

That is, you can find unity in all work, you can divide it into important components (calculation of the project and its graphic representation).

Thus, concepts, as it were, strengthen generality in a person, allow thinking to cover a wide range of phenomena, thereby expanding and deepening concrete knowledge. As Aristotle said: "... people are wise not because of their ability to act, but because they have understanding and know the reasons." is given, but this connection is not a product of the student's imagination, but an objective reality.

The definition of "set" appears for the first time in Aristotle, but it was not possible to develop a universal concept that represents any bounded interconnected set. Later they became the concept of "system".

Currently, the study of the objective world and the laws of its reflection in people's minds has reached such a level that it is not enough to act only with concepts such as object, object, and knowledge in the process of cognition, because they represent a separate, undivided, individual thing. The system is an object, a subject, knowledge, and at the same time it is complex, interrelated, and acts on its own. "System" is a philosophical category that, in contrast to the concepts of "object" and "subject", reflects the contradictory unity of the many and the singular rather than separate and unconnected.

One of the opposite sides of the system is "disorder". Currently, philosophers and many scientists come to the conclusion that chaos reflects the unknown laws of the movement of matter, and a system can be considered chaos in a certain sense compared to another system.

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