

CONTENTS, VALUE OF INTERDISCIPLINARY RELATIONS.

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Abstract: This article through the integration of the disciplines of engineering graphics and design technology education teaching methods contains characters illuminated. It of planned to actively use interdisciplinary integration, increase the effectiveness of education, analyze and implement it in practice and give high results. Teaching engineering graphics and design sciences in the classroom one of the main sources of organization is the need for integrated training that meets the requirements of the time.

Keywords: modernization, integration, interactive, innovation, technology, resource, engineering, design, module design, didactics.

We know that from educational sciences in order to ensure the relationship between the demand for educational activities aimed of the forms a so complex. Attention to paid to the initial homework in other subjects, the number of minutes of repetition in the classroom because of one textbook, the use of schematic representation.

Today's era of globalization, T fuse is one of the main factors ensuring the continuity of the modernization of its contents. Integrity in education is the ability toon correctly establish the necessary connections and relationships between its parts at different stages of the study of a particular subject. Membership means the sequence, systematic placement of educational material, the reliance on previously acquired knowledge, the future application of educational material, the duration of the stages of educational work.

Interdisciplinary coherence in textbooks should have reflected in the coherence of teaching materials and teaching methods, coherence depends on them, but it is also relatively independent and affects the improvement of teaching materials and teaching methods shows. One of the most important tasks today is the active use of interdisciplinary integration in the educational process, increasing the effectiveness of education, analysis and implementation. In interdisciplinary integration, it is extremely important to develop students' scope of thought, spatial imagination, consciousness, worldview, to transform them from a free listener to a free participant. That is the mission interdisciplinary integration advantages of a multi -faceted way.

The main ideas of interdisciplinary integration:

Personal orientation of education (human is the main value of the educational process);

Formation of generalized science structures and methods of activity acquisition of knowledge because of understanding patterns;

Promoting the rule of the feelings of the motivation of the learning process (internal, external, and organizational);

(Consistently studying the relations within the scientific theory of knowledge);

Today continuing education secondary and higher education subjects integrated, interactive methods and innovative technologies, interest in the application of information technology in teaching and learning process, the focus is also on the. The reason for this is that time of traditional education students skills taught, now ready for international

integration of science then the modern and innovative teaching techniques and find out there for their own research, independent study, learn Analysis of knowledge, even concluding that they. There is taught. The role of the teacher in this process is the formation of student development, learning, and will be to create the conditions to be well mannered.

At the same time, the stewardship role of directions, students are the main person. Interdisciplinary integration, development and the establishment of continuity features aspects of personal development content, its flexibility, social skills development, independent, intelligent reasoning skills, to revive the qualities of good quality and is considered to be an appropriate factor.

Integration is a traditional learning tool;

Before filling the knowledge, know the intersection, the connection between them;

is to increase the level of knowledge of the student by updating the existing narrow specialization in teaching .

Many countries around the world use integrated curricula and textbooks in their education systems. Although a number of positive steps have been takers in the country to integrate the teaching of sciences, the integration of disciplines in the field of engineering graphics and design has don'ts been implemented been implemented and many global problems have not yet been resolved:

- The concept of integrated education for engineering graphics and design sciences in higher education, which is the main link in the system of continuing education, has don'ts been developed;

- The integrated content of educational disciplines and methods of teaching it are don'ts created;

- Forms and methods of integrating the content of educational disciplines have don'ts been developed;

- teaching training science content integration identifying methods of teaching can of integrating the content of educational disciplines have don'ts been developed imagine.

Technologies in integrated learning.

The term technology on derived from foreign methodologies and is used to describe a variety of organized learning processes. Technology - a set of tools and methods of work in the educational process, a set of production of scientific and technological parts, as well as the types of breads created to obtain a particular product or service. The use of technology aimed to at improving the methods of influencing students in solving didactic tasks. Technology Electronic information and educational resources play an important role in increasing the effectiveness of education through the introduction of information and communication technologies in these disciplines.

There are many types of pedagogical technologies, which differ on different grounds. In didactics, technology to divided into three main group's *Explanatory - illustrative - educational technology*. The essence of his students have information and estimated scientific knowledge and general education, special abilities (the subject) in order to form their reproductive activities.

The task of education is becoming an increasingly information-educational environment to teach the effective use of information to recipients of information flow and to give them the opportunity to work independently.

1. *Person- centered learning technology*. It focuses on the transfer of education to a subjective basis that assumes the self- development of the individual. More education was essentially a learning process for all participants in the development of a full year. This is aggregation integration of education, that education is not the personality

of the recipient, first of all a future engineering and design expertise based on their activities in order to approach the country

2. *Developmental learning technology.* This on based on the student's personal development aimed at regulating the internal mechanisms lies in the teaching method.
3. Each of these groups integrated disciplines of engineering graphics and design more suitable for the use of educational technology. Here for example, integrated science, engineering graphics and design at various levels of person -oriented technology group hire (differentiated) technology public education, and the development of a full knowledge of technology, module technology and others. This is to take into account the individual characteristics of the bulk of technology, teachers and students to improve their methods of interaction.

A technology as much or as popular as a professor scratching. The subject of a series of integrated natural science education in relation to the following technologies.

Technology of formation of methods (techniques) of educational work.

Examples of these rules, algorithms, did not describe the view and plan view of the parties. This technology, engineering drawing and design fans all textbooks and methodical apparatus of its own, but was not reflected in a wide scientific be determined through research.

Technology of shaping students learning activities.

The essence of this technology is that it is student s reading issue as a particular form of activity. He focused on training assignments with the help of knowledge in engineering graphics and design sciences, drawings (on the board, poster, etch) are given at the beginning of the lesson. They not charged at the end of the course, during the course of this task in accordance with the results of the diagnostic check. Technology teacher science through the integration of these two topics are training assignments with the activities of the system, and it provides for the development of projects related to student activities.

Differentiated learning technology.

In its application, students the divided into conditional groups in the classroom, taking into account the typological characteristics of students. The formation of groups takes into account the personal attitude of students to learning, the level of teaching and learning, interest in the study of engineering graphics and design sciences, the personality of the teacher. Didactic material or created that differs in different levels of programs and content, size, complexity, methods and techniques of task performance, as well as for the diagnosis of learning outcomes.

Module technology. The module functionality - such as the technology, he says it is teachers teaching material content and technology combine to take him by the students.

Teaching students about their engineering drawing and design disciplines for integrated education through independent study to develop a set of instructions. The specific purpose of the development of educational material. Student use of integrated resources provide clear instructions and information thobe detected. Examples of tasks to be tested there given in these instructions.

Project activity technology. The essence of this technology and organization of research activities. The projects will be different creative, informative, fantastic, research and so on.

As a result, teachers are going to use this technology in integrated education process in order to achieve a full, rich, interesting content. Based on the above, we believe that the use of integrated graphics in engineering graphics and design sciences can solve problems by developing an electronic version of educational and methodological developments. Students interested in based on the use of modern teaching them learn their personal needs and to create the conditions for physical education class efficiency over the face.

Education in the process of integration and effective use of the technical and didactic tool in order to achieve high efficiency in the engineering and design disciplines to help stages of the design and the content of his job, or abdominal effect. Engineering Graphics and Design courses subjects required by the organization with the help of one of the main sources of integration should include the establishment of teaching. The use of engineering graphics and design in the teaching of interdependence should serve to develop students' creative abilities and their professional skills. We believe that once students have sufficient graphic knowledge and skills, they will achieve high results by establishing integrated teaching of engineering graphics and design sciences.

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