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Important Social and In Holistic Vision of Engineering Graphics and Design Disciplines Didactic Factors

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ABSTRAC

This article discusses in detail the methodology of teaching engineering graphics and design disciplines through integration, and the use of these methods is of great importance for various activities carried out in environments such as design, creation, testing, configuration and adaptation and, ultimately, the ability to reuse managed objects, it is written about the effects of the integrated system of practical applications and the use of knowledge-based methods when creating a virtual layer that provides the necessary functionality in their respective database.

Keywords: Engineering graphics, design, integration, didactics, project, knowledge, skills, science, research, methodology, thought, idea, line, drawing geometry, space, technique.

INTRODUCTION

Research is being conducted to improve the effectiveness of teaching engineering graphics and design, develop students' knowledge and skills, and integrate the content of the fundamentals of related disciplines. This, in turn, allows students to apply the knowledge and skills acquired in the field of engineering graphics and design in designing, understanding the essence, forming artistic and imaginative imagination, and realizing educational goals. Let's briefly learn about engineering graphics for the first

time using these features.

P.Belyaeva's scientific and practical research has shown that in the field of methodology, combining an extensive complex into a single structure is impossible without integration [1, 93p]. Over the years, from the integrative approach (M.S.Various methodological approaches have been successfully developed and put into practice [81, 93p]. The set of technical drawings used by technicians and engineers to draw systems and objects is called engineering graphics. Technological processes, systems, and structures are visually described, explained, and analyzed through it. Basically, the lines are processed manually, using computer tools and programs. Engineering graphics play an important role in explaining, interpreting methods and complexes, as well as in describing research results. Engineering Graphic Sciences students also develop the ability to flow through spatial representations of ideas and ideas expressed by lines [3. 65 p).

All the geometric properties of shapes known to us can also be determined from information obtained from their drawings. That is why drawings of objects can be called flat geometric models reflecting their geometric properties. It is known that the properties of a geometric shape can be verified by analytical and graphical methods. The geometric properties of shapes that we know can also be determined from information obtained from their drawings. That is why drawings of objects can be called flat geometric models reflecting their geometric properties. It is known that the properties of a geometric shape can be verified by analytical and graphical methods. The graphical model of figures can also be seen in descriptive geometry, mainly in the fact that they are given analytically, and vice versa, in the fact that drawings can be made from the analytical representation of figures. In descriptive geometry, each point of the three-dimensional space R3 is compared with each point of the two-dimensional space R2 (plane) according to certain graphical rules, establishing an unambiguous correspondence. Therefore, the geometry of a drawing can be called the geometry of a graphical representation, which represents space on a plane [4. 544 p).

The term “design” is a lot. " designare" means to define, to give meaning. Since the Renaissance, the Italian word “disegno” has meant not only a project, paintings, but also ideas and thoughts that have a solid foundation. In England, the concept of “design" became widespread in the 16th century. In the etymology of the English language, the concept of “design” has three meanings. For example, the first definition includes decorative objects: pattern, ornament, ornament serein “design” lot. “design are” means to define, to give meaning. Since the Renaissance, the Italian word “disegno” has meant not only a project, paintings, but also ideas and thoughts that have a solid foundation. In England, the concept of “design" became widespread in the 16th century. In the etymology of the English language, the concept of “design” has three meanings. For example, the first definition includes decorative objects: pattern, ornament, ornaments. The second definition expresses a design-graphical interpretation (sketch, drawing, draft, drawing, construction). And the third one goes beyond the scope of the project and means a plan, an assumption, planning. In Russian, however, the term “design” is used to refer to the design of the subject environment surrounding a person.

The designer solves other people's problems, not his own. To create a good design, you need to take care together with a person to understand exactly what is important to them. Talking in a confidential tone makes it easier for a designer to find the right ways to interact with people and innovative solutions. Design is engineering graphics of a high artistic level. insider solves other people's problems, not his own. To create a good design, you need to take care to understand exactly what is important to it. Talking in a confidential tone makes it easier for a designer to find the right ways to interact with people and innovative solutions. Design is engineering graphics of a high artistic level. The engineer's opinion, which defies aesthetic image, looks like a projected production facility with drawings, chaos of shapes and anemia of color. Taking this into account, we can say that design is a specific engineering field of design activity aimed at processing the object–spatial environment, the purpose of which is to give the design results high consumer and aesthetic qualities, optimization, and harmonization of their interaction with humans and society [5. 179 p).

The integration of the content of engineering graphics and design science is ensured by the following important social and didactic factors:

- ≈ accounting for the social demand of society;
- ≈ reflection of integration processes in science, education, technology, engineering, production;
- ≈ implementation of advanced ideas of teaching engineering graphics and design;

≈ the study of the objects of cognition of these two disciplines, which have didactic significance;

CONCLUSION

Our conclusion shows that the organization of the educational process based on an integration approach ensures increased effectiveness and reliability. He considers the general didactic aspects of integration as the material and spiritual aspects of the content of the educational process. Integration processes that update the content become a didactic principle (the principle of integration in education). He's considering it. Our conclusion shows that the organization of the educational process based on an integration approach ensures increased effectiveness and reliability.

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