THE CONTENT OF THE METHODOLOGY FOR FORMING DESIGN SKILLS (ON THE EXAMPLE OF ENGINEERING GRAPHICS)

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ABSTRACT

In the modern education system, the development of design and technical thinking plays an important role. The subject of Engineering Graphics serves as a key tool in preparing students for drawing, spatial imagination, constructive thinking, and the design process. Therefore, properly organizing the methodology for forming design skills in this subject contributes not only to the acquisition of theoretical knowledge but also to the development of practical creative thinking. The inclusion of design education in the educational and training process of educational institutions, as well as the development of its methodological foundations, plays an important role in forming the necessary skills for students.

Educational institutions aim to prepare students who are maximally ready to apply their knowledge and acquired skills in their future professional activities, are in high demand in the labor market, and are capable of responding quickly to the needs of society and the socio-cultural sphere.

In today's conditions, the creation of a unified educational environment and an open educational space sets the following tasks before the pedagogical community:

- digitalization of the educational process (in full-time, blended, and distance learning formats);
- the use of information and communication technologies;
- the formation of a new type of literacy that enhances a person's ability to adapt to continuously changing living conditions.

Among students of higher educational institutions in the field of art, particularly those studying within the broad educational area of "Art," future designers are undoubtedly the most focused on learning and using new digital technologies in their project activities. This is directly related to the specific nature of their field of study.

Design skills refer to a person's ability to harmoniously combine form, color, volume, composition, and technical solutions. Through the subject of Engineering Graphics, students learn spatial thinking, the depiction of objects in various projections, and the analysis of these from a design perspective.

This process takes place through the integration of theory, practical exercises, and creative assignments. As a result, students acquire the ability to develop design elements based on drawings and to aesthetically refine technical projects.

The formation of design skills is a process of great importance in developing students' professional and creative potential. Today, in the context of global economic and technological development, the field of design is rapidly changing and evolving. In such conditions, one of the key tasks of the education system is to prepare students in accordance with the requirements of the modern professional sphere and to develop their practical skills.

In this regard, the methodology for forming design skills plays a direct role in determining the future success of students, as it depends on how effectively and qualitatively it is organized within the educational process. The methodological approaches developed by various scholars and experienced specialists are aimed at encouraging students' activity, creativity, and independent thinking.

At the same time, modern educational technologies — including interactive and project-based learning approaches — contribute to enhancing students' professional competence. This, in turn, enables the training of designers capable of solving real-life problems that arise in their professional activities.

Currently, the methodology for forming design skills in educational institutions encompasses multiple directions, among which the integration of theoretical knowledge with practical skills, the support of creative activity, and the implementation of systems for analysis and evaluation play an essential role.

The purpose of teaching design within the discipline of Engineering Graphics is to guide students toward:

- studying the fundamentals of graphic culture and technical aesthetics;
- integrating engineering thinking with creative design;
- developing the skills to create drawings, models, and 3D designs.

In short, the main stages of the methodology are as follows:

1. **Theoretical preparation stage.**At this stage, students study projections, isometry, axonometry, sections and cuts, as well as the rules for dimensioning drawings. This forms the foundation of graphic thinking.
2. **Practical stage.**
   - Completing sketches and drawings independently;
   - Working with computer programs such as AutoCAD, SolidWorks, SketchUp, and others;
   - Applying design solutions in the drawing of technical objects.
3. **Creative stage.**Students develop their own projects — for example, designing technical parts, mechanisms, or 3D models of interior elements.

At this stage, design thinking and technical solutions are harmoniously combined.

As has been repeatedly emphasized at scientific and practical conferences, a higher education institution acts as an independent creative laboratory capable of defining and clarifying the foundations of modern design, identifying areas of design activity, developing methods of design thinking, and determining the role of design in contemporary society.

As a type of creative activity, design itself serves as a universal tool for shaping and educating a creative individual.

A future designer who possesses knowledge and skills in teaching will undoubtedly become an excellent specialist in the field of aesthetic education. The main task of a higher educational institution is, of course, to develop the individuality of each student at every stage of their learning process.

As a result, students trained under this methodology develop spatial imagination and graphic culture, enhance creative and technical thinking, acquire the ability to carry out design projects independently, and achieve a harmonious integration of engineering and artistic thinking.

In conclusion, the discipline of *Engineering Graphics* serves as an important educational field in the formation of design skills. Its teaching methodology integrates theoretical knowledge with practical activities, shaping students into specialists who possess both technical reasoning and aesthetic taste. Thus, the application of design-oriented approaches in the study of Engineering Graphics is becoming an essential component of modern education.

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