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METHODOLOGICAL SYSTEM OF FORMING GEOMETRIC GRAPHIC SKILLS OF STUDENTS OF TECHNICAL HIGHER EDUCATION INSTITUTIONS.

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Abstract:
This article presents the ideas that graphics play a leading role in the work of operators of complex systems that reflect data in graphic forms as a methodological system for the formation of geometric graphic abilities of students of technical universities.

Keywords: Spatial Visualization, Drawing, Graphics, Plane, Perpendicular, Projection, Model, AutoCAD.

It is not surprising that due to the development of technology and information technologies, there are great opportunities to effectively master the complex processes taking place in engineering education in a short time, so it is advisable to use it in higher education institutions.

As the head of state noted, one of the main tasks facing higher education institutions is to train modern bachelors and masters with deep theoretical knowledge and practical qualifications in their areas of education. One of the conditions for successful mastery of knowledge of modern technology is the ability to read and execute drawings. In this regard, the basis of drawing a drawing requires a perfect mastery of the science of drawing geometry.

It is necessary to acquire knowledge and skills that allow drawing geometry and engineering graphics to compose and read drawings, as well as
to develop spatial vision. The ability to compose and read drawings is based on knowledge of the method of making images, the solution of various positional and metric problems and a number of conventions accepted in drawing geometry and construction drawing. Spatial imagination is understood as the ability of a person to visualize the shape, dimensions, proportions, color, surface texture and certain qualities of various objects, including buildings, structures and structures.

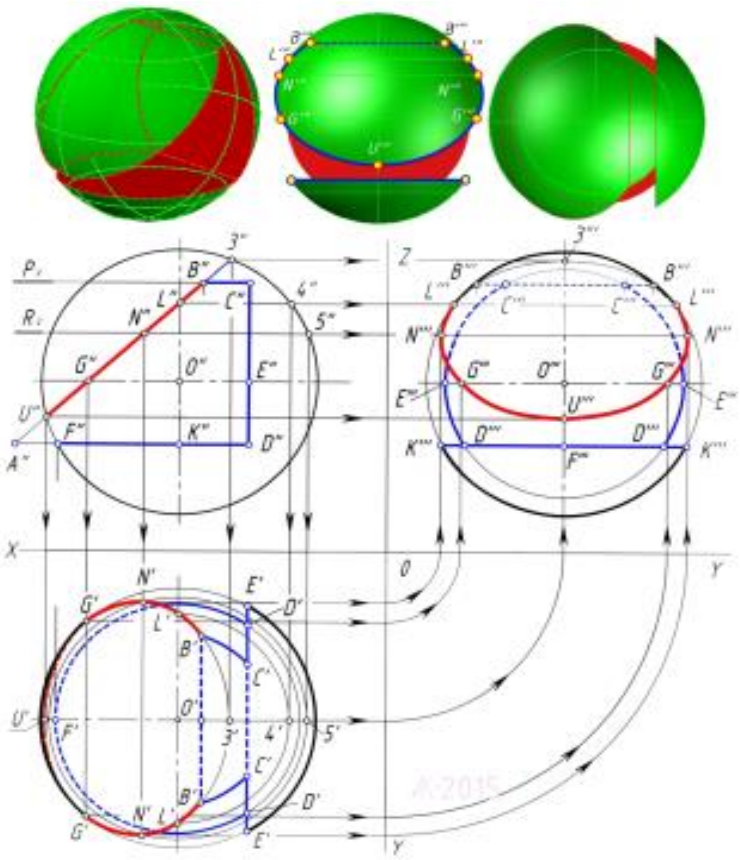
The activity of an engineer constructor in any field of mechanical engineering and construction (aircraft, automobiles, bridges, roads, residential and industrial buildings,) is impossible to imagine without graphics, including computer graphics. Graphics is of leading role in the work of operators of complex systems that display data in graphical forms. At the same time, the operator communicates not directly with the object itself, but with its graphical model and in the process of receiving and processing information behaves like a deputy object. Image types are cinematic schemes. It is carried out in the form of technological schemes and drawings, graphics cards, TV screens.

A skill — is the ability to perform a specific activity or action based on a person's previous experiences. Skills are a component of practical activities, the ability to apply knowledge in practice. Skills are ways to successfully perform an action in proportion to the purpose and circumstances of the activity. It is always based on knowledge; it is the basis of skill (qualification). Skills are subtly divided into practical (physical) and mental, and formal and complex types. Practical skills are aimed at the implementation of labor activity, mental skills are aimed at acquiring knowledge, mastering it. Skills should not be confused with knowledge, because knowledge is expressed in judgments (reasoning) that are correctly reflected in reality. Skills, on the other hand, are more embodied in mental and physical movements.

Qualification - 1) in psychology - a skill acquired as a result of mastering a certain profession, work. Usually, in the process of any work, actions are carried out in a conscious or unconscious way. Disambiguation pages with short descriptions Jump to search Emotional control of movement, methods of controlling it from the center are changing. Disambiguation pages with short descriptions Thanks to this, the task will be executed smoothly, without excessive effort, quickly and efficiently.

Currently, there is a growing interest in applying interactive methods, innovative technologies, pedagogical and information technologies in teaching. At the same time, mostly until now, students have been trained to acquire ready-made knowledge, modern technologies teach them to search for what they have acquired, to independently study and analyze and, if possible, to draw conclusions on their own. In this process, the teacher creates conditions for the development, formation, acquisition of knowledge and upbringing of the individual, and at the same time performs a managerial, guiding function, in which the student becomes the main figure.

In conclusion, the practice of using AutoCAD in the process of teaching graphic geometry of the formation of geometric graphic skills has shown the feasibility of using graphic programs as part of elementary graphic training in technical universities. At the same time, it should be noted that at the initial stage of higher education the use of graphic drawings to solve educational problems contributes to the formation of stable skills in the use of modern information technologies to solve production problems and creates conditions for training modern IT specialists for various fields.



The main goal of introducing a continuous education system in the Republic is to instill in the younger generation such skills as high professional culture, creative and socio-political activity, free thinking. At the same time, it is necessary to increase the engagement of learners. Therefore, it is desirable to make extensive and appropriate use of interactive teaching methods in the cultivation of independent, creative, critical thinking of students. At the same time, the formation of students' knowledge and skills on labor education, the systematization of the organization of classroom and extracurricular activities, the introduction of new methods for monitoring and evaluating the results of teaching work are not reflected insufficiently. Therefore, the use of active methods of teaching and upbringing, the search for optimal forms of teaching and testing in secondary schools is becoming an urgent task.

It is known that teaching methods consist of the teacher's activities with students in order to achieve certain goals, and serve to reveal the issues of who needs to be taught what and how. Therefore, the activation of students' cognitive activities and the appropriate choice of forms and methods used for their independent, creative thinking will give an effect in the training of personnel in the future.

Any learning process is aimed at mastering some information that eventually becomes a skill, skill or knowledge. Introduction is the most complex concept and refers to the combined application of knowledge and skills to accomplish a specific task. Over time, skills are also acquired, and it means using theoretical knowledge with skills that have been developed in practice. So, if you develop a certain movement to a certain skill level, the movement can be done mechanically and at the same time new knowledge can be gained and translated into skills and abilities.

How are these four concepts related to each other: knowledge, skills, skills, and habits? Thus, in practice, sharp skills began to turn into (compiled) skills. In a sense, knowledge is both a skill as well as a skill. Only these skills and abilities touch a person's verbal and mental functioning in general. Knowledge, skills and Skills are all purposeful activities, purposeful actions, manifestations of a constructive understanding of reality.

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