INTEGRATIVE APPROACH IN THE PROCESS OF FORMATION OF GRAPHIC COMPETENCE OF CADETS

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Abstract: The article deals with the use of an integrative approach to teaching graphic disciplines. Theoretical and practical aspects of formation of graphic competence of cadets of the Higher military educational institutions in the course of training of discipline "descriptive geometry and engineering graphics" are considered.

Key words: competence, integrative approach, military education, graphic competence, graphic training, engineering graphics.

Currently, the Armed Forces of Uzbekistan set goals and objectives that impose new requirements for the training of cadets - future officers. Modern rapidly changing foreign policy environment, expanding zones of instability, unparalleled challenges and threats to national security of the state impose a significant impact on the military education of cadets, require a flexible combination of theoretical and practical training, deep integration of education, science and practice.

The complex and dynamic nature of modern service and combat activities, the use of the latest information technologies, weapons and military equipment, the dependence of the course and results of military operations on the content and quality of advance training of military equipment determines the objective need to improve the system of military education, its focus on the formation of future officers of professional competencies.

The construction of military education on the basis of competence-based approach and its use in assessing the quality of training of future military specialists actualized the whole direction of the problems associated with the definition of ways of formation of not separate knowledge, skills, and competencies that provide the solution of military-professional tasks.
Competencies are regarded as a structuring principle of modern higher education. The target orientation of military vocational education to the end result has led to the need to design the standards of professions, and the sense-forming units of such standards are the key competencies. The formation of their students will help to strengthen the fundamental training of military specialists. It is on this basis, the most effective can be formed such qualities of military specialists, as the breadth of professional outlook, combined with his depth of professional adaptation and mobility, the ability for continuous self-development and self-education, ability to flexible thinking and others.

In terms of the introduction of competence-based approach to the practice of education of military universities, graphic training is aimed at the formation of graphic competence of cadets, contributing to a conscious understanding of the structural, technical and functional characteristics of technical objects in solving professional problems, the free possession of design documentation and its use in professional activities, as well as providing self-development of the personality of the future military specialist, its value orientation. Graphic competence thus acts as an integral component of professional competence of graduates of military high school.

When studying the course of engineering graphics cadets master the basic requirements for the implementation of drawings and dimensioning, basic information of the unified system of design documentation (USDD), perform a number of graphic works on projection and engineering drawing. The study of the basics of engineering graphics allow students to understand the logic and geometric rules of construction of drawings, the sequence of execution of engineering and geometric tasks, develop spatial thinking of cadets, accuracy, allow not only to draw a particular image, but also to remember the necessary requirements of the USDD standards when performing graphic works.

**Graphic competence as a component of professional competence of the graduate of the Higher military educational institution is characterized by:**
- availability of fundamental knowledge in the field of design;
- conscious ability to apply existing knowledge in practice;
- ability to apply in practice modern methods and technologies of computer-aided design;
- proficiency in working in graphic packages of computer graphics in the professional field;
- motivation for successful military-professional activity
- possession of spatial thinking;
- the ability to combat the development of graphical documentation;
- the ability to generalize, analysis, information perception of graphical;
- readiness to use information and communication technologies.
The course of engineering graphics with design elements will be interesting and available to cadets only if they are in the process of performing graphic tasks, creating original topographic maps, plans and other graphic documents related to the specialty, realize the importance of the disciplines of the graphic cycle in their future professional activities, and only then they will better learn the program material.

Thus, classes on "Engineering graphics" should contribute to the establishment of logical links of the main course with other academic disciplines so that the cadets have learned them as a complete system with the entire structure reflecting the studied science. The level and quality of graphic education is one of the indicators of General professional and special training of the future military specialist.

The discipline "Engineering graphics" forms the theoretical and practical basis for the study of General and special disciplines, forming the Foundation of General engineering training in a military University. Currently, the main targets in the implementation of state educational standards of higher education are such parameters as the result of education and competence. The result of training in engineering graphics in a military University is the graphic competence of the cadets.

Graphic competence of the cadet is a system of knowledge, skills, skills of working with graphic information, as well as the ability and willingness to carry out various types of educational and professional activities with the use of this system.

A necessary condition for the formation of graphic competence is an integrative approach to solving the issue of graphic training of cadets of a military University. Integration in this case is considered as a process of coordination, ordering and combining the various components of the content of education. Integrative beginning of formation of graphic competence of cadets of military high school is the potential of targeted graphic training, and in accordance with the requirements of the state standard of higher education is represented by interrelated aspects: General cultural, General professional, professional-specialized. The level and quality of multifunctional graphic training must meet the requirements of the standard of higher military education. When building the content of graphic training should take into account the requirements and requests of General professional and military-special disciplines that ensure the quality of military training.

An integrative approach to the training of military specialists should be decisive in the design of the content of educational programs, the choice of various forms of training at the University, the organization of intellectual creative activity of cadets in the educational, combat and technological sphere. It is the integrative approach that is most effective for the formation of professional competencies as integral neoplasms affecting the cognitive,
activity and personal spheres. The most complete integration of the content of various disciplines and the implementation of interdisciplinary connections are expressed in the form of integrative modules that allow you to create time-efficient curricula, programs, textbooks, which contributes to the rationalization of the educational process as a whole. Programs in the disciplines include aspecific subject modules, develop in different ways: a) teaching; b) teaching based on the material covered in another module; c) a joint study of two modules; g) sharing the basic concepts, algorithms, and models for solving tasks of different modules. This makes it possible to implement the idea of generalization of knowledge (particular ideas, theories and concepts) and ways of their assimilation, which contributes to the optimization and intensification of learning. The study of graphic disciplines has a great influence on the professional development of future military specialists, the development of their spatial imagination, creative thinking, lays the foundations of knowledge necessary for the development of other technical and military-special disciplines. Graphic images are one of the important means of knowledge of the world, a tool of creative and spatial thinking of the officer. Graphic training teaches to operate with the concepts and spatial images connected with visualization of information, to broadcast it by means of graphic means. It is no secret that at the present time graphic disciplines are experiencing fundamental changes associated with the automation of graphic modeling, and hence graphic training. Traditional methods of displaying graphic information, as well as methods of teaching graphic disciplines have ceased to meet modern requirements and have lost their effectiveness. In this regard, there was a need to revise the entire educational process for the study of disciplines of the graphic cycle, optimization of educational time and improve the quality of graphic training of graduates of military universities. In the process of studying the disciplines "descriptive geometry and engineering graphics" of particular importance is the automation of drawing works, where the computer is used as a new graphic tool in solving traditional educational problems. There is a need to ensure a close relationship between the disciplines of the graphic cycle and the full integration of military special disciplines. Such a complete integration of previously disparate disciplines is possible only if certain conditions are met: 1) the presence of elements close in content to each other (proximity of research objects, the same or similar research methods, General theoretical concepts, laws); 2) the need to combine them into a single whole, due to the objectives of education (prerequisites of Association); 3) the preservation of the necessary minimum components of autonomy in the formation of integrity; 4) the use of integrated subjects of General or the same methods of activity of students. Under the influence of integration at the level of goals, content, methods and means of training
cadets formed professional thinking and indicative basis for future professional activities. Knowledge and methods of activity, which in normal subject conditions are mutually remote in time and can not be due to this circumstance, "captured" completely by the thinking of students, in the conditions of integrated learning are extremely close and contribute to the development of their orientation in different and different levels of knowledge systems and methods of activity.

**Integration of educational material for graphic works with the educational-professional activities of the cadets must ensure:**

1. awareness and understanding of the importance of graphic training to solve specific educational and professional problems;
2. formation of readiness to carry out professional activity, realizing in it the acquired graphic potential;
3. the formation of a technical type of thinking, assuming the basis of a well-developed spatial thinking, predetermining the creative potential of a military specialist;
4. formation of motivational and value attitude to the need to develop professional and personal qualities and abilities by means of graphic training;
5. possession of the necessary amount of design and graphic knowledge, skills taken in unity and interaction with the military-professional orientation;
6. development of General educational (generalized) skills: management (goal-setting, planning, organization, control and analysis), information (finding, processing and use of information), logical (structuring the content of the educational process, setting and solving educational problems), communicative (implementation of various kinds of contacts between the participants of joint activities).

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