FORMATION OF PROFESSIONAL COMPETENCE OF PROGRAMMERS THEM IN A COMPETITIVE ENVIRONMENT

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Abstract. This article describes the formation of professional communicative competence in the training of future engineers and programmers and their preparation for a competitive environment. Suggestions and recommendations for training future engineers-programmers on the basis of the content and quality requirements for training competitive personnel in accordance with the needs of the labor market, improving them on the basis of technological processes, practical application of knowledge, application of modern technologies, teamwork and self-development. At the same time, the concepts of competence, competence, the essence of communicative competence, the rules of communicative ability are described.

Keywords: scientific research, design, communication, competitiveness, conceptual, technical operation, digital systems, management and marketing, design, creative potential.

Today, the programs of socio-economic development of our country are significant in that they are aimed at entering the world economic space on the basis of priority introduction of innovative technologies.

The current stage of development of the information society is characterized by the constant introduction of new information and communication technologies in all spheres of our lives. Informatization of society means a society that includes such areas as labor, research, design, automation of production processes, automation of public services, automation of organizational and economic management, informatization of education and training systems.

The widespread introduction of computer technology and telecommunications in all spheres of public life creates problems in the development and implementation of accurate information systems, software, maintenance of computer equipment. This requires appropriate training and professionalism of professionals working with new software systems.

Today, it is important to train future engineers and programmers in accordance with the requirements of the labor market, the content and quality of training, their implementation in technological processes, application of knowledge in practice, application of modern technologies, teamwork and self-development.

In connection with the emergence of specialties that train engineers-programmers, the problem of formation of professional communicative competence among specialists in this field is a topical issue. This, in turn, leads to an increase in the level of training of software engineers. Because the dynamics of technological change, the obsolescence of equipment and its software requires fundamental training and the ability to quickly master new technologies. Independent decisionmaking, the ability to adapt quickly to a new task, a broad outlook on the subject should become the main professional qualities of future software engineers.

The field of professional activity of engineers-programmers is related to the methods of collecting, processing, storing, transmitting and receiving information, the organization of data channels, modern means and methods of information protection in networks.

Today, according to experts and employers, the quality of professional training of software engineers does not fully meet modern requirements. There is a growing shortage of staff in enterprises and organizations. There is a lack of training of specialists in this field in higher education institutions in cooperation with customers. Therefore, the content of training requires the development and introduction of new curricula and programs based on the needs of the industry, the qualification requirements of educational areas and specialties, which combine the requirements for knowledge and skills of graduates. [1]

The formation of the competitiveness of future professionals is one of the main trends in the development of modern higher education in the world. The competitiveness of a specialist is determined by his various abilities, their level of development and the state of his resources. Competitiveness is one of the competencies of the modern specialist, which provides him with direction in market conditions and gives him useful differences compared to competitors, which allows him to succeed and secure his skills. The competitiveness of the specialist is considered as one of the leading goals of vocational training, the achievement of which is confirmed by the acquisition of line experience in market conditions, comparing the quality of their products and the achievements of different manufacturers, making claims to achieve the highest results in competition. The level of competitiveness of engineers-programmers is determined by criteria that reflect the readiness to form an effective system of professional activity, study market requirements and create products that meet its requirements and development prospects. [2]

Today, a competent approach to improving the education system is seen as an important conceptual aspect of updating the content of education. A competent approach is aimed at shaping the social, communicative, informational, professional and other personal qualities of the learner, allowing him to fully realize the modern socio-economic conditions. This approach is based on the concept of competencies such as the full development of the learner's personality and the formation of it on the basis of the ability to solve important practical tasks. The goal of a competent approach is to ensure the quality of education. Analysis of research on the problems of improving the education system shows that competence and competence are considered as the main unit in updating the content of education.

Competence is the activity that is carried out to achieve the desired result. Practical competence is a product of knowledge and the ability to apply it in practice. The meaning of the word "competence" is defined by awareness, reputation, a broad understanding and experience in their field. Competence is a personal quality, the ability, knowledge, skills and competencies that are expressed in pedagogical activities and social life in different situations.

Training of modern specialists implies a high level of professional knowledge, a broad general cultural outlook, the ability to demonstrate this knowledge in solving major professional problems. They should have the following key competencies in their areas of professional activity:

- knowledge of the basic principles of structured programming, technical and operational features of programs, design features, features and methods of operation of digital systems, their rules;

- technical operation, technologies of automatic data processing and coding, object-oriented programming languages, current standards of programs, number systems, ciphers and codes, the order of preparation of terms of reference;

- Advanced local and foreign programming experience;

- engineering thinking, which includes parts of management and marketing, labor organization and programming management, respectively, technical, design and research;

- direction in market conditions, where the product of the programmer's activity is required;

- information competence;

- Psychological readiness for competitive behavior (competition, competitiveness, mobility, ability to predict the actions of the opponent, the ability to prioritize): the need for successful activities;

- initial capabilities (fundamental knowledge, practical experience, general cultural potential, talent);

- creative potential;

- self-management, organization, adequate reflection, self-assessment of professional and personal qualities;

- social and legal authority, etc. [3]

In summary, the main goal of a competent approach in vocational education is to train a qualified employee who is competitive in the labor market, competent, skilled in their profession and focused on complex areas of activity, ready for continuous professional growth, social and professional communicative. Competence is seen as a level of professionalism that forms the basis of a specialist's work. The competence of a specialist is interpreted as the ability of an individual to solve different types of simple and complex tasks at different levels.

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