TASKS OF MANAGING THE EDUCATIONAL PROCESS OF THE DISCIPLINE CHEMISTRY IN THE RESEARCH UNIVERSITY

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Improving the quality of education, achieving its level of compliance with the actual and prospective needs of society is a priority task of Ukraine educational policy. The higher education of Ukraine in recent years is aimed at integration into the European educational space. National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", as one of the leading technical universities in Ukraine, is working hard to implement an efficient quality management system for its specialists in its work. Successful engineering activities are possible only on the basis of a comprehensive understanding of the processes of the material world and the ability to create new devices and technologies based on modern scientific achievements. Therefore, knowledge of natural sciences, including those related to chemistry, is a necessary basis for effectively solving the tasks of practical activity in creating the newest natural and technological branches.

The Department of General and Inorganic Chemistry is constantly working on the problem of improving the quality of preparation of chemistry bachelors of engineering specialties. However, ensuring the qualitative training of engineers in research universities according to the programs of technical specialties of training is to a large extent complicated as a result of the growth of the gap between the level of education of graduates of schools and the requirements of higher education institutions. Thus, in 2016, 2017, the control of the residual level of knowledge among the first-year students of NTUU "Igor Sikorsky Kyiv Polytechnic Institute"determined the following results in terms of quality of achievement: from chemistry 65%, mathematics - at the level of 57% (in different faculties in the range from 45 to 79%),physics 50% (in different faculties in the range from 40 to 73%).

In the system of measures that ensure the implementation of a quality management system, the departments activities are aimed at using such teaching methods that take full account of the students creative potential and ensure the formation of an appropriate level of knowledge and sustainability in their learning. The focus of attention was transferred to the implementation of personality-oriented learning, which involves the creation of new organizational forms of interaction between the teacher and the student, stimulating active self-mastery of knowledge, forming professional virtue, skills of future professional activities, contribute to the development of motivation to study.

The experience of introducing corrective principles in the organization of the educational process of the discipline Chemistry allows us to implement significant constructive achievements in the organization of quality training of bachelors from, but in the future, the activities of teachers should be concentrated on the management of such processes as:

- acquisition of new knowledge through the development of students logical thinking;
- formation of the students ability to independently solve specific practical problems, the ability to find optimal methods for solving problems;
- development of the ability to analyze in detail the results of research and the ability to obtain

an acceptable engineering solution based on the application of known algorithms of the solution, the principles of analogy;

- improvement of the methods of organizing the control of independent work of students and the construction of an effective individual and consultative work of teaching staff;
- use of a mixed learning environment and a project-based approach to learning.

Application of such methods of teaching in the educational process will provide a qualitative component of the fundamental knowledge that initiates professional competence, and at the same time create favorable conditions for the development of skills to solve complex engineering and scientific problems in the dynamic world of engineering and technology development.