APPLIED DIRECTION OF THE STUDY OF HIGHER MATHEMATICS BY STUDENTS OF PROFESSIONAL PRE-HIGHER EDUCATION

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The article substantiates the need for a practical, professional focus of studying the course of higher mathematics by students of professional pre-higher education institution.

*The **aim of the article** is to highlight the ways of implementing the professional orientation of the content of mathematical disciplines in the education of students in various specialities of vocational higher education.*

Modern requirements for the development and reform of higher education require an increase in the professional competence of a bachelor's graduate in each field of knowledge, the ability to creatively approach and find the solution to emerging professional tasks. Therefore, teachers of higher mathematics have the task of reorienting the teaching of the academic discipline with the use of professional problem solving. The purpose of the article is to highlight the ways of implementing the professional orientation of the content of mathematical disciplines in the training of students of professional pre-higher education in various specialties of the college.

In connection with the rapid development of science and technology, the training of competent, competitive, and highly qualified specialists requires a high level of skills in applying mathematical apparatus in professional activities. Mathematics is the basis of studying physics, technology, general technical and special disciplines. At present, mathematical education has a significant impact on the formation of professional qualities of a modern specialist who is able to navigate the directions of development of modern science and methods of learning about the world around them, predict the impact of human production on society and the environment.

Modern mathematics is used in the study of economic, humanitarian, biological, physical, technical and other phenomena. This is done by building a mathematical model. It takes into account all essential connections within the phenomenon. Under mathematical modelling we will understand the method of researching processes or phenomena by building their mathematical models and researching these processes. The applied direction of solving problems by students of various specialties is oriented towards future professional activity. This is an effective means of increasing learning motivation, and developing mathematical and professional competences.

The results of the research are examples of practical problems of various sections of higher mathematics for students of economic and technical specialties. The applied nature of the given problems aims to combine the study of higher mathematics with special training of future bachelors and to give them the opportunity to gain experience in solving production problems, and to increase their professional competence. This is very important in times of fierce competition in the labour market.

Conclusion. *Practical skills and the ability to use the mathematical apparatus when solving applied, profession-oriented problems increase the motivation of students of higher and pre-higher education, and aid students to study other courses of professional disciplines, and do coursework and diploma projects, which will contribute to the maximum use of mathematical methods in the educational course of higher education mathematicians in the future professional activity.*

The obtained results open up prospects for further research in the following directions: development of methods of formation of skills to solve applied problems by students of various specialties, as well as strengthening integration links between fundamental and profession-oriented courses.

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