ANALYTIC GEOMETRY TEXTBOOK FOR FOREIGN STUDENTS OF BELARUSIAN STATE UNIVERSITY

N.G. Abrashina-Zhadaeva[1], L.L. Biarozkina[1], M.A. Hliatsevich[1], N.K. Filipava[1]

[1]Belarusian State University, Minsk, Belarus gletsev@bsu.by

Nowadays Belarusian State University (BSU) is involved in the international collaboration, and this process is gathering pace actively. The number of foreign students interested in studying BSU courses is growing constantly. Thus, the availability of educational materials to students who are not Russian speakers is strongly needed. This fact leads to the necessity of the textbooks on various disciplines written in English, and in accordance with BSU educational programme. Our authoring team presents Analytic Geometry Textbook that meets these requirements [1].

This textbook for studying in English corresponds to the curriculum of the course "Analytic Geometry and Linear Algebra" that is given in the first semester on the Faculty of Physics and the Faculty of Radiophysics and Computer Technologies. It is written on the basis of lectures and practical seminars, which the authors have been teaching for many years, and of the electronic educational-methodical complexes elaborated for students of these faculties [2,3].

The textbook consists of two chapters. The first one includes all the theoretical material necessary for a complete understanding and assimilation of the topics "The elements of vector algebra", "Lines and planes", "The second order curves", "The second order surfaces". The second chapter contains analyzed solutions of the key problems illustrating the practical application of the knowledge given in the first chapter. It also includes the tasks for self-solution. The authoring team gives the answers to these tasks at the end of the textbook. The authors selected and compiled the material is in such a way that allows the students to learn the discipline independently. The presentation of the theory and the analysis of the problems are accompanied by detailed illustrations. Each section of the second chapter contains references to the paragraphs of the first chapter with the necessary concepts, definitions, and theorems. The problems for independent solutions not only build on the analyzed material in order to consolidate it in memory, but also stimulate the student to independent creative thinking. The answers to these problems allow the self-control of gained knowledge. Every element of the textbook serves the main purpose that is to help students understand the links between the basic concepts and conclusions of analytic geometry; teach how to give answers to test questions; teach how to solve basic types of problems.

Analytic Geometry textbook takes a special place among the English literature on this topic due to the breadth of the material covered and the number of the problems analyzed. For the first time, the English textbook reflects the classical approach of presenting material of the course "Analytic Geometry" that is characteristic of the mathematical school created at BSU.

References

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