Features student learning mathematics nowadays

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The article deals with the problems of higher education in Russia by the example of mathematics. Special attention is given to the fact that university applicants are unprepared and unmotivated to higher education, which leads to impossibility to implement the main educational task – teach them to study. The author arrives at a conclusion, that universities should start teaching maths with elementary mathematical operations, as some educators said: "In order to learn something, you have to know something already". The serious teaching of students should be carried out at university from the very first courses. It seems to be impossible to give solid knowledge to students in a short time. "To learn something, you have to work hard". A student is not able to do long calculating operations without any mistakes, so he needs "helpers" which might help him to solve the problem. Such "helpers" can include computer tutorials which are supposed to implement definite tasks. Distance education could be also very supportive. The study investigates working conditions for university teaching, analyses of such requirements, as working with students who pay fees, academic teachers' activity and the process of teaching staff renewal.

Keywords*: university applicant, student, motivation, computer tutorials, operations research, matrix, distance education.*

Greshilov A.A. (b. 1939) graduated from Moscow Engineering Physics Institute, Department of Experimental and Theoretical Physics in 1964. Dr. Sci. (Eng.), Professor. In 1964—1977 he took part in nuclear tests at Semipalatinsk and Novaya Zemlya proving grounds. In 1967—1968 he proposed and substantiated the method of measuring nuclear charges by gaseous fission products — isotopes of krypton and xenon. This method is in demand in our time for detection of illicit nuclear explosions. Greshilov A.A. is the winner of an international competition announced by the U.S. government in developing methods for detection of nuclear explosions conducted in secret. In 1968 he proposed an original method for measuring the activity of the isotope xenon-133 in natural mixtures by its characteristic X-ray radiation. In 1980s under his leadership there was developed a methodology of forecasting and calculating the five-year plan for the industry "communication". He suggested methods of accounting errors of all input data (confluent analysis) when processing the results of observations and a number of methods for solving ill-posed problems. He is also the author of methods for determining bearings of radio emission in the passive direction finding, which reduced time response while simultaneously improving the accuracy of determining bearing. In recent years Greshilov A.A. pays great attention to writing books on mathematics with attached multimedia disks that can help students to solve problems outlined in his books. He is the author of over 200 scientific papers, including more than 30 monographs, 30 patents on developing mathematical methods of considering uncertainty of the initial information in mathematical physics, pattern recognition, forecasting, and other technical applications. e-mail: agresh@mail.ru