

Learning Calculus with Free Dynamic Mathematics Software GeoGebra

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The integration of information technologies into education is a complicated and long process. The development of this process is slow; nevertheless, it reached a new phase. The subject integration of technologies is actual today; the report deals with integration of information technologies in teaching mathematics. In this respect, we consider program GeoGebra.

GeoGebra is an open source code software, which is widely used in teaching geometry, algebra and calculus. The report deals with positive results received by the use of GeoGebra in teaching calculus in the university.

The software enables to construct dynamic, visually effective models for problems considered at laboratory lessons. The user can dynamically modify the result graphically and/or imaginarily (with electronic table, if needed) both in the program environment and without it, which helps to analyze the solution of a problem.

As an example, we consider the way of construction of dynamic graphical model and the methods of use of two basic notions, derivative and integral.