International Electronic Journal of Mathematics Education 2015 vol.10 N3, pages 177-187

Computer support of interdisciplinary communication of analytic geometry and algebra

Kapustina T., Popyrin A., Savina L. Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2015 by iSER, International Society of Educational Research. The relevance of the research is due to the modernization of higher mathematical education in Russia, which led to a significant change in the curriculum and the need to establish new relationships of disciplines. The aim of the article is to find ways to solve the problem of the interdisciplinary connections in the teaching of present course "Analytical geometry" and "Algebra" in higher education. The leading method of the study of this problem is the methodical analysis and subsequent synthesis, which allows, having analyzed the didactic content of the "Analytical Geometry" and "Algebra"courses, to identify the necessary interdisciplinary communication between them and find ways to implement them through the use of modern educational technologies. It is proved that one of the instruments for implementing these methods is a computer, in particular systems of computer mathematics (Maple, Mathematica). Article submissions may be useful to teachers of mathematical disciplines of higher education institutions.

http://dx.doi.org/10.12973/mathedu.2015.113a

Keywords

Information learning, Interdisciplinary communication, Mathematics