

Документ подписан простой электронной подписью

Информация о владельце:

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Должность: и.о. директора Института цифрового развития

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Уникальный программный ключ:

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Discipline annotation

Discipline name		Геометрия / Geometry	
Summary		Linear dependence of vectors. Coordinate method. Vector spaces. Nonlinear operations on vectors. Straight line on a plane. Plane and its basic equations. Straight line in space. Second-order curves. Surfaces of the second order (surfaces of revolution). Cylindrical and conical surfaces. Quadratic forms. Reduction of the equation of a curve of the second order to the canonical form.	
Learning outcomes of the discipline (module)		- carries out the selection and systematization of the main properties of the most important algebraic structures; fundamentals of linear algebra; fundamentals of analytical geometry. - operates with elements of numerical fields, linear spaces, linear operators, matrices, vectors, linear and non-linear geometric objects; solves systems of linear equations; applies algebraic methods to solve geometric problems; applies algebraic and geometric methods to solve applied problems, as well as evaluates the quality of the solutions obtained; demonstrates the ability to abstract, including the ability to logically develop individual formal theories and establish a connection between them. - able to use mathematical methods and software technologies for working with algebraic structures to solve professional tasks.	
Workload, c. u.		5c. u.	
Reporting Forms		Exam - 2nd semester	
List of essential and supplementary literature necessary for mastering the discipline			
Essential literature		1. Ilyin, V. A. Linear algebra and analytic geometry: textbook for universities / V. A. Ilyin, G. D. Kim; M. V. Lomonosov Moscow State University. - 3rd ed., revised and enlarged - Moscow: Prospect: Publishing House of Moscow University, 2012. - 392, [1] p.: ill. ; 22. - (Classic university textbook). - Textbook was awarded with the RF President's Prize in education sphere. – Stamp: approved by Methodological Association. - Bibliography: p. 14 (17 titles). - Indices: subject, alphabet: p. 388-393. - ISBN 978-5-392-02856-6 2. Chegolin, A. P. Linear Algebra and Analytic Geometry / Electronic source: textbook / A. P. Chegolin. - Rostov-on-Don: Southern Federal University, 2015. - 149 p. - The book is in the basic version of IPRbooks ELS. - ISBN 978-5-9275-1728-2	
Supplementary literature		1. Gorlach, B. A. Linear Algebra and Analytic Geometry. Workshop for students of technical and economic specialties of universities / Electronic Gorlach B. A., Rostova E. P. - St. Petersburg: Lan, 2021. - 144 p. - ISBN 978-5-8114-6737-2 2. Ivleva A. M. Linear algebra. Analytical geometry [Electronic source]: tutorial / A. M. Ivleva, P. I. Prilutskaya, I. D. Chernykh. -Electron. text data. -Novosibirsk: Novosibirsk State Technical University, 2014. -180 p. - ISBN 978-5-7782-2409-4. Available at http://www.iprbookshop.ru/45380.html	