

Документ подписан простой электронной подписью

Информация о владельце:

ФИО: Верисокин Александр Евгеньевич

Должность: И.о. декана факультета нефтегазовой инженерии

Дата подписания: 06.03.2024 11:29:29

Уникальный идентификатор:

fd7a4d68f83235500c45c0b6f10966ab195e1d00

Annotation to the work program of the discipline

Name of disciplines	Методы прикладной математики в нефтегазовом деле / Methods of Applied Mathematics in Oil-and-Gas Engineering
Brief content	Mathematical methods for finding the optimal values of parameters. interpolation methods. Methods for solving equations and systems of equations. Elements of the theory of probability. Elements of mathematical statistics. Construction and analysis of regression dependencies. Differential equations and numerical methods for their solution. General information about the VBA software product and its application to solve problems oil and gas industry. General information about the MATLAB software product. Solving problems of applied mathematics in the MATLAB environment.
The results of mastering the discipline (module)	has the ability to use the physical and mathematical apparatus to solve computational and analytical problems that arise in the course of professional activities.
Labor intensity, cu.	4
Reporting Forms (including by semesters)	Exam, 5th semester
Informational and educational-methodical and discipline	
Main literature	1. V.E. Zaliznyak Numerical methods. Fundamentals of scientific computing. Textbook and practice. Yurayt: 2016, 356 p.
Additional literature	1. M.P. Lapchik, M.I. Ragulin, E.K. Henner. Numerical Methods, Moscow: Publishing Center "Academy", 2005, 384p. 2. A.G. Avetisov, A.I. Bulatov, S.A. Shamanov. Methods of applied mathematics in engineering in the construction of oil and gas wells. M.: Nedra-Businesscenter LLC, 2003. 239p. 3. E.S. Wentzel. Theory of Probability, Moscow: State Publishing House of Physical and Mathematical Literature, 1958, 345c. 4. Vasiliev A.H. Matlab Tutorial Practical approach. Science and Technology. St. Petersburg, 2015, 448c