**Program annotation**

**01.03.02 Applied mathematics and informatics**

**Program name:**Applied informatics

**Cualifications:** Bachelor

## The term of study for full-time:4 years

**Graduate departments:**Applied mathematics

**The program objectives:**Preparing bachelors, able to work successfully in the field of mathematical modeling and system programming with competencies, promoting social mobility and stability in the labor market.

**Field of professional activity:** scientific and institutional organizations related to the solution of scientific and technical problems; research and computer centers; research and production associations; educational institutions of secondary vocational and higher education; government departments; organizations engaged in the development and use of information systems, scientific achievements, products and services in the field of applied mathematics and computer science.

**Objects of professional activity:**math modeling; mathematical physics; inverse and ill-posed problems; numerical methods; theory of probability and mathematical statistics; operations research and systems analysis; optimization and optimal control; mathematical cybernetics; discrete math; nonlinear dynamics, computer science and management; mathematical models of complex systems: theory, algorithms, and applications; mathematical and computer image processing techniques; mathematical and information support for economic activities; mathematical methods and software for information security; mathematical support and software of computer networks; information systems and research of information systems by methods of mathematical forecasting and system analysis; mathematical models and methods to design VLSI circuits; high-performance computing and parallel programming techniques; computational nanotechnology; intelligent systems; bioinformatics; software engineering; system programming; tools, technologies, resources and services of e-learning and mobile learning; applied internet technologies; automation of scientific research; programming languages, algorithms, libraries and software packages, the products of the system and application software; system and application software; database systems; enterprise management system; network technologies.

**Features of the curriculum:** The curriculum ensures the formation of all the necessary competences provided by educational standards. For that purpose, the curriculum includes: general subjects, such as "History", "Foreign Language", "Philosophy", "Life safety", etc .; general professional and special disciplines, such as "Mathematical analysis", "Algebra and geometry", "Differential equations", "Discrete mathematics", "Complex analysis", "Functional analysis", "Theory of probability and mathematical statistics", "Physics" ,"Numerical methods", "Operations research", "Practicum on mathematical modeling and statistical methods", "Computer architecture and computer graphics", "Programming languages and methods of translation", "Fundamentals of automated information technologies", "Microprocessor systems", "Database design "," Operating systems "," Logical and functional programming "," Information systems programming technology "and others.

**The list of enterptises for practical training and employment of graduates:**Research Institutes of the city of Obninsk, Russian Federation State Research Center "Physics and Power Engineering Institute" them. AM Leypunsky; Russian Research Institute of Hydrometeorological Information - World Data Center; RPA "Typhoon", Research Institutes of Moscow and Kaluga,.