# 09.03.04 Software Engineering

## Mathematical Tools and Software for Computer Systems and Networks

Software is used in any business and industry, which forces stakeholders to compress information and knowledge for their further point use. This is precisely why the field of software engineering was created - the manufacture of a high-quality IT product for its commercialization or internal use.

Currently, software industry is actively developing and is a full-fledged area for modern Russian and global economy. Qualified software development professionals are constantly in short supply, and this trend will continue in the future. Specialists in industrial software development must have extensive training in systems and application software development for various purposes. This fact determines the program relevance in the educational market.

**Curriculum features**

- Design and architecture of software systems

- Introduction to intelligent systems and technologies

- Dynamic and dialog intelligent systems

- Economics of software engineering

- Fundamentals of systems modeling

- Introduction to the theory of neural networks

- Cybernetic systems programming technology (software project management)

- Tools for intelligent simulation modeling

**Professional opportunities**

- information and communication technologies;

- nuclear and other high-tech industries.