

11.03.04 Electronics and Nanoelectronics

«Nanoelectronics, Spintronics and Photonics»

The program provides in-depth training of priority R&D areas of research and development in nanoelectronics, spintronics and photonics: heterostructure electronics, electronics based on wide-gap semiconductors, graphene, carbon nanotubes, etc.

Unique disciplines:

- Semiconductor physics
- Solid-state electronics
- Integrated circuit technology
- Introduction to modern nanotechnology
- Materials science in micro- and nanoelectronics
- Heterostructure and microwave electronics technology Measurements in micro- and nanoelectronics
- Microprocessor systems

Professional opportunities:

Graduates of the program are fully qualified to work in areas that are extensively demanded at the present time and are the key areas for the applied science and technology: physics and technology of semiconductor electronic and optoelectronic devices (light-emitting diodes, photovoltaic cells, thin-film field-effect transistors, memory elements, etc.), based on nano-scale multilayer dielectric and semiconductor heterostructures.