

## **11.04.04 Electronics and Nanoelectronics**

### **«Nanoelectronics, Spintronics and Photonics»**

The program provides students with necessary skills and knowledge to excel in the field of experimental research and technologies for preparation and modeling of solid-state (semiconductor) nanoscale multilayer structures (nanoheterostructures). During the studies you will also gain general cultural and professional competencies to stand out among the peers on the labor market.

#### ***Unique disciplines:***

- Physics of Nanosystems
- Physics: Molecular Beam Epitaxy
- Devices of Micro-and Nanoelectronics: Physics and Technology
- Numeric Methods and Applied Software in Electronics
- Design and Simulation of Micro- and Nanoelectronics

#### ***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 cell, thin-film field-effect transistors, memory elements, etc.), based on nano-scale multilayer dielectric and semiconductor heterostructures.