Program name: "Nanoelectronics, spintronics and photonics"

Direction code: 11.03.04 Electronics and nanoelectronics

Required duration: 4 years
Program mode: Full-time
Eligibility requirements: High school certificate or equivalent
Qualification awarded upon graduation: Bachelor
Graduating Institution: Institute of nanotechnologies in nanoelectronics, spintronics and photonics (NESPI), Department of condensed matter physics

Program Description: The program aims to train bachelors for the needs of modern electronics, as well as developers of electronic devices based on new physical principles. Our graduates become leading experts in the development and implementation of new technologies:

– heterostructured electronics;

– wide-gap semiconductors;

– graphene and carbon nanotubes;

– microprocessor design;

Research activities during education allow to work successfully in the fields of mathematical modeling, design, microwave, optical, micro - and nanoelectronics of various functional purposes.

Learning outcomes:

o ability to analyze problems, to formulate goals, to conduct experiments using of modern methods, to make correct conclusions based on the results of the research, to prepare scientific articles;

o structure and devices design skills for electronics in accordance with specified requirements, prepare technical specifications;

o the ability to participate in the feasibility and functional analysis of market efficiency of the created product.

Career opportunities: Graduates of this program have the skills to design structures and devices for electronics in accordance with the specified requirements, their manufacturing and testing, as well as the skills to prepare technical tasks. The knowledge gained during training allows graduates to take part in the technical, economic and functional analysis of the market efficiency of the created product. Below are a few examples of who graduates can work with.

Nanosystems Engineer

Photonics Engineer

Researcher in the field of wide-gap semiconductors etc.