Abstract of the educational program of the magistracy

“Microwave Photonics”

Direction code: 12.04.03 Photonics and Optical Informatics

Required duration: 2 years
Program mode: Full-time
Eligibility requirements: Bachelor
Qualification awarded upon graduation: Master
Graduating Institution: Institute of nanotechnologies in nanoelectronics, spintronics and photonics (NESPI), Department of condensed matter physics

Program Description: This program prepares masters for work in the field of activities related to applied research, development and technology in the field of photonics and optical informatics. The main areas of research include:

- Devices and systems based on coherent optics;
- Materials and systems, methods and technologies for optical transmission, transformation and storage of information;
- Systems for optical and quantum calculations;
- Systems based on nanoscale structures.

The uniqueness of this program is ensured by the high technical level of the Institute’s experimental base, the ability to work in key areas of applied science and technology: physics and technology of photonic optoelectronic devices, quantum informatics.

Career opportunities: The education received by graduates allows them to successfully work in the field of experimental research, production technologies and modeling of devices and systems for photonics and optical informatics. The unique professional competencies of graduates contribute to their social mobility and relevance.

The objects of professional activity include photonics devices and methods for their research, design and construction, modern software for modeling and designing nanoelectronic devices. The acquired skills allow working both in research institutes and in corporations involved in the production of electronics and devices based on the principles of photonics.