

**Code and title of specialty (direction):** 105 "Applied Physics and Nanomaterials"

**Title of specialization:**

**Code and title of the field of knowledge:** 10 "Natural Sciences"

**Qualification:** Bachelor of Physics

**Number of credits:** 240 ECTS credits

**Grade of higher education:** first (Bachelor) corresponds to the sixth qualification level of the Ukrainian National Framework of Qualifications.

**Requirements to the previous education grade:** a person has the right to obtain a Bachelor's degree in case of completing secondary education or in possession of Associate's Degree on relevant specialty. Provided that the previous degree was obtained in another country, it requires nostrification.

**Qualification requirements:** the higher education document is issued to a person who had successfully completed the educational program and was certified. The final attestation is carried out on the basis of evaluation of the degree of development of competences. Form of attestation – defence of a Bachelor's thesis.

**Program study results:** use conceptual knowledge, including knowledge of the latest advances in professional activities; conduct research and implement innovations in particular professional activities or in the learning process, characterized by uncertain conditions and requirements in education; interpret information, choose methods and tools to solve professional problems; apply innovative approaches and forecasting; communicate to specialists and non-specialists concerning information, ideas, problems, own findings and knowledge and explanations in professional activities; to form a communication strategy; communicate in a foreign language; be responsible for the professional development of individuals and / or groups; study with high autonomy and independence.

Teaching Career: to possess the knowledge of methods of teaching in secondary school; plan and implement the educational process in secondary school with modern teaching systems.

Research professional activities: conduct research; use mathematical tools for theoretical analysis; devise a mathematical model of the process or a system; define the necessary equipment for experimental work; conduct experimental data processing.

Technological professional activities: introducing physical devices in the field of professional activity; ensure the efficiency and safety components of physical devices and physics laboratories according to the rules of operation.

Organizational professional activities: technical support on all stages of objects of BSc in Physics activities; provide legal and technical operation of physical devices and monitor their use in laboratories of physics.

Management professional activities: planning of components of technological and organizational activity, monitoring components of technological and organizational performance.

**Employment competences:** Bachelor of specialty 105 "Applied Physics and Nanomaterials" may hold positions in companies, small businesses and institutions: engineer-physicist; teacher of physics in secondary schools; researcher.

**Further study perspective:** Bachelor of specialty 105 "Applied Physics and Nanomaterials" can continue training for the qualification of Master in 10 "Natural Sciences" and other directions as per the acts of MESU.

**Department graduating a student with degree:** Department of Applied Physics.

**Institute / Faculty:** Institute of Transport and Logistics

**Educational program supervisor:** Associate Professor, Ph. D. in Science, Khoroshun Anna Mikolaivna, an\_khor@i.ua; Mob. n. 066 171 9306