

**Code and title of specialty (direction):** 051 Economics

**Title of specialization:** Economic Cybernetics

**Code and title of the field of knowledge:** 05 Social and Behavioral Studies

**Qualification:** Bachelor of Economic Cybernetics

**Number of credits:** 240 ECTS credits

**Grade of higher education:** first (bachelor) corresponds to the sixth qualification level of 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:** Ability to demonstrate knowledge and understanding of economic cybernetics basics based on relevant mathematical methods and use of information technology; the ability to demonstrate knowledge and understanding of sections of mathematics and computer science, related to the basic knowledge of economic cybernetics: economic computer science, mathematical statistics, economic modeling, predicting social and economic processes, optimization of methods and models in the economy, the use of information systems and technology in economic management.

The ability to use the basic knowledge for future applications. Ability to demonstrate experimental skills in economic cybernetics (knowledge of experimental methods and procedures for the experiments), held under supervision, to test hypotheses and research phenomena and laws; ability to set the correct issues, knowledge of standard equipment, planning and carrying out schemes of experiment, collecting and analyzing data, including careful error analysis and critical errors evaluation of results. Ability to demonstrate knowledge and understanding in basic level fundamentals of economic cybernetics, perceive and understand the role models and theories in development of modern economy and flexible thinking; ability to demonstrate knowledge and understanding of the basics at a basic level of economic cybernetics in accordance with the current state of international and national economy; ability to apply knowledge and understanding at the operational level of the fundamentals of economic cybernetics and related sciences (mathematics, ecology, computer science, etc.) to develop an understanding of interdisciplinary relations between the basic sciences. Basic knowledge and understanding of the special sections on student's choice: systematic analysis, modeling and management of economic risk, evolutionary calculations in economics, economic information systems design, visualization of economic information for future specialization and development of interdisciplinary approaches. The ability to perform computer calculations related to economic issues, using appropriate software and programming language, analysis skills and display of results. Mastering the skills of working independently (Bachelor's thesis) or in group (laboratory class, practical classes), the ability to get results within a limited time with a focus on professional integrity and prevention of plagiarism. Foreign languages proficiency, including special terminology for scientific literature search.

**Employment competences:** jobs in public institutions, industrial enterprises and companies, small businesses and institutes of technology and information spheres (researchers, quality

control, commerce), the sphere of environmental protection, teaching positions, positions in financial institutions.

**Further study perspective:** Master's programs in Economic Cybernetics (theoretical and practical level), interdisciplinary programs (cybernetics, economics, computer science).

**Department graduating a student with degree:** Department of Economics and Business

**Institute / Faculty:** Institute of Economics and Management

**Educational program supervisor:** Ph. D. in Economics, associate professor Inna Maksymivna Semenenko, isemenenko@ukr.net, +38095 532 4142