MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
NATIONAL TECHNICAL UNIVERSITY OF UKRAINE
"IGOR SIKORSKY KYIV POLYTECHNIC INSTITUTE"

APPROVED
Academic Council of "Igor Sikorsky Kyiv Polytechnic Institute"
(meeting protocol №
Chairman of the Academic Council
_____ Mykhaylo ILCHENKO

ECONOMICS

EDUCATIONAL AND SCIENTIFIC PROGRAM

third (education and science) of higher education

in specialty	**051 Economics**
Areas of knowledge	**05 Social and behavioural sciences**
Qualification	**Doctor of Philosophy in Economics**

Entered into force by Order of the Rector
of "Igor Sikorsky Kyiv Polytechnic Institute"
from _____202_ № _____

Kyiv – 2022

DEVELOPED by the project team:

Project team leader:

VOITKO S.V , Doctor of Economics, Professor, Head of the Department of International Economics _____

Project team members:

Martunenko V.P., Doctor of Economics, Professor, Professor of Economics and Business Department

Kreidych I.M., Doctor of Economics, Professor, Professor of Economic Cybernetics Department

Heads of departments:

Head of the Department of International Economics
VOITKO S.V., Doctor of Economics, Professor,

Head of the Department of Economics and Business
TULCHINSKA S.O., Doctor of Economics, Professor

Head of the Department of Economic Cybernetics
BOYARINOVA K.O. Doctor of Economics, Professor

AGREED:

Scientific and Methodical Council of Speciality 051 "Economics" Igor Sikorsky Kyiv Polytechnic Institute

Head of the Scientific and Methodical Council of Speciality _____ Serhii Voitko

(meeting protocol №

Methodical Council Igor Sikorsky Kyiv Polytechnic Institute

Vice-rector _____ Anatolii Melnychenko

(meeting protocol №

INCLUDED:

1. The approved standard of higher education in the specialty 051 Economics (order of the Ministry of Education and Culture No. 424 dated 05/10/2022).
2. Regulations on the development, approval, monitoring and revision of educational programs at KPI named after Igor Sikorskyi (put into effect by order No. 7/70 dated 04/07/2020).
3. Remarks and proposals of stakeholders based on the results of the discussion:
- scientific and pedagogical workers;
- students of higher education;
- representatives of student self-government;
- representatives of employers.

The following people joined the work on the Educational Program:

1. Saharuk Tetyana Valeriyivna, General Director of the NGO "Global Compact Network in Ukraine", Ph.D.
2. Kolomiets Oleksandra Oleksandrivna, Head of the Department of Social Strategy of the Center for Economic and Social Research, National Institute for Strategic Studies, Ph.D.
3. Podolets Roman Zdyslavovych, Head of the Sector for Forecasting the Development of the Fuel and Energy Complex of the Institute of Economics and Forecasting of the National Academy of Sciences of Ukraine, Candidate of Economic Sciences, Senior Researcher.
4. Klymchuk Maryna Mykolayivna, Professor of the Department of Organization and Management of Construction, Kyiv National University of Construction and Architecture, Doctor of Economics, Professor.
5. Svicharov Petro Oleksandrovych, director of Krona-Kalynivka LLC.
6. Yuriy Anatoliyovych Pivovarov, Executive Director of the Ukrainian Association of the Club of Rome.
7. Krutsyak Mykhailo Orestovych, post-graduate student of the 4th year of study at ONP "Doctor of Philosophy", KPI named after Igor Sikorsky.
8. Zamriy Artem Myzailovych, post-graduate student of the 3rd year of study at ONP "Doctor of Philosophy", KPI named after Igor Sikorsky.

Relevant feedback is attached.

The educational and scientific program "Economics" was discussed and changed after receiving all the wishes and proposals from employers and students of higher education of KPI named after Igor Sikorskyi and approved at the meeting of the Department of International Economics No. 4 dated May 24, 2022.

CONTENT

1. EDUCATIONAL PROGRAM PROFILE IN THE SPECIALTY 051 ECONOMICS

1 – General information	
Full name of the higher education institution and institute / faculty	National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" Faculty of Management and Marketing
Degree of higher education and title of qualification in the original language	Degree HE – Doctor of Philosophy Educational qualification – Doctor of Philosophy in Economics
The official name of the EP	Economics
Type of diploma and scope of EP	Ph.D. Diploma, educational component - 50 ECTS credits, training period 4 years. The scientific component involves conducting personal research and design of results in a dissertation form.
Accreditation availability	The program is not accredited. It is planned to issue a program for accreditation in 2021 (already done).
Program cycle / level	National Qualifications Framework of Ukraine – the 8 level QF-EHEA – the third cycle EQF-LLL – the 8 level
Precondition	Master's degree presence
Language teaching	English
Validity of the EP	Before accreditation
Internet address of the of educational program permanent placement	osvita.kpi.ua http://ied.kpi.ua/uk/archives/2064
2 – The purpose of the educational program	
Training of highly qualified competitive specialists in economics, able to solve complex problems in the field of professional research and innovation in the field of economics, which involves a deep rethinking of existing and the creation of new holistic knowledge.	
3 – Characteristics of the educational program	
Subject area	Object of activity (research): theory, methodology of scientific research, phenomena, phenomena and problems of modern economic processes and systems of tools for the formation of international, national, regional, sectoral economic policy and enterprise economy. Learning goals: acquiring the ability to produce new ideas, to solve complex problems in the field of economics, which involves a deep rethinking of the existing and the creation of new holistic knowledge and/or professional practice. Theoretical content of the subject area: general laws, regularities and trends of socio-economic development, motivation and behavior of market subjects; theories of micro-, macro- and international economics; quantitative methods in economic research; institutional, interdisciplinary and historical analysis of socio-economic phenomena and processes; development and justification of economic decisions; regulation and management of multi-level economic systems. Methods, techniques and technologies: methods of micro- and macroeconomic research, computer modeling of economic systems, statistical analysis, forecasting, project management, digital technologies, methods and technologies of scientific and pedagogical activity. Instrumentation and equipment: information and communication systems, specialized software, devices and equipment necessary for conducting scientific research in the field of economics.
Orientation of the EP	Educational and scientific

The main focus of the EP	It consists in the possibility of forming integrated competencies of the applicant, combining deep theoretical training with the development of practical skills of research and teaching, based on best practices, which are aimed at the comprehensive development of the specialist and contribute to his professional growth. The program is based on the latest scientific principles, conceptual foundations of economic research and solving current problems in the field of economics, which create the basis for the formation of innovative solutions in theoretical and applied areas. Keywords: world economy, analysis of economic systems, mathematical methods in economics, change management, business transformation.
Features of EP	The peculiarities of EEP are the training of highly qualified specialists in economics on the basis of comprehensive professional, intellectual, social and creative development of the individual integrated into the world research space, who have modern economic thinking, theoretical knowledge and applied skills capable of solving complex research and innovation. tasks and problems of functioning of economic systems of different levels, characterized by uncertainty of conditions and requirements. The purpose and purpose of the EEP in all respects correspond to the specified strategy of Igor Sikorsky Kyiv Popytechnic Institute, namely:... "providing training of highly qualified specialists capable of creating modern scientific knowledge and innovative technologies for the benefit of mankind and ensuring a worthy place of Ukraine in the world community" and promoting "shaping the society of the future on the basis of sustainable development through internationalization and integration of education, the latest research and innovative developments. The program focuses on conducting research work according to the research topics of supervisors. The implementation of the program involves the involvement of classroom practitioners, industry experts, representatives of employers.
4 – The suitability of graduates for employment and further education	
Employability	Employment in the positions of scientific and scientific-pedagogical workers in scientific institutions and institutions of higher education, other positions requiring the qualification of a doctor of philosophy in economics, in particular in the positions of scientific consultants, experts, analysts in research institutions and divisions of enterprises, institutions, organizations. Graduates can work at enterprises of any organizational and legal form in positions (according to the classifier of professions of Ukraine DK 003: 2010): 2310 Teachers of universities and higher educational institutions 2414.1 Researchers (financial and economic security of enterprises, institutions and organizations) 2441.1 Researchers (economics) According to the International Standard Classification of Occupations 2008, graduates can work in positions that correspond to groups 12 Administrative and commercial managers 121 Business services and administration managers 33 Business and administration associate professionals 332 Sales and purchasing agents and brokers 333 Business services agents
Further education	Continuing education in doctoral studies and / or participation in postdoctoral programs.

5 – Teaching and evaluation	
Teaching and learning	General learning style - task-oriented. Teaching is carried out in the form of: lectures, practical classes, computer workshops, independent work with the possibility of consulting with a teacher, individual tasks, practice, application of information and communication technologies (e-learning, online lectures, distance courses) for individual educational components. All participants in the educational process are provided with timely and understandable information on the goals, content and program learning outcomes, the procedure and evaluation criteria. One of the main tasks of the University is to carry out scientific activities by conducting research, ensuring the creative activity of participants in the educational process, training highly qualified scientific staff and using the results in the educational process, providing an organic combination in the educational process of educational, scientific and innovative activities. University development strategies for the period 2020-2025. Postgraduate students are free to participate in educational, scientific and scientific-organizational activities carried out both within Ukraine and abroad. Postgraduate students are involved in research within the scientific topics of the department or faculty. The results of scientific research are published in professional publications, collections of scientific papers and conference proceedings both in Ukraine and abroad.
Assessment	Current and semester control are assessed according to the defined criteria of the Rating system. Also, the assessment of students' knowledge is carried out in accordance with the Regulations of the assessment learning system of outcomes at Igor Sikorsky Kyiv Polytechnic Institute for all types of classroom and extracurricular work (current, calendar, semester control, oral and written exams, tests).
6 – Program competencies	
Integral competence	The ability to produce new ideas, solve complex problems in the field of economics, as well as conduct own scientific research, the results of which have scientific novelty, theoretical and practical significance, which involves a deep rethinking of existing and the creation of new holistic knowledge and/or professional practice.
General competences (GC)	
GC 1	Ability to abstract thinking, analysis and synthesis.
GC 2	Ability to search, process and analyze information from various sources.
GC 3	Ability to work in an international context.
GC 4	Ability to generate new ideas (creativity).
GC 5	Ability to solve complex problems of the economy on the basis of a systematic scientific worldview and a general cultural outlook while observing the principles of professional ethics and academic integrity.
GC 6	Ability to obtain information, ideas and points of view from highly specialized sources within their own field of study; understand articles and scientific reports on contemporary issues in which the authors have a certain position or point of view.
Professional competences (PC)	
PC 1	Ability to perform original research, to achieve scientific results that create new knowledge in economics and related interdisciplinary areas and can be published in leading scientific journals in economics and related fields.
PC 2	Ability to orally and in writing present and discuss the results of scientific research and/or innovative developments in Ukrainian and English.
PC 3	The ability to use modern methodologies, methods and tools of empirical and theoretical research in the field of economics, computer modeling methods, modern digital technologies, databases and other electronic resources, specialized software in scientific and scientific-pedagogical activities.
PC 4	Ability to carry out scientific and pedagogical activities in higher education institutions.

PC5	Ability to identify, analyze in depth and solve research problems in the field of economics, taking into account economic risks and possible socio-economic consequences, to assess and ensure the quality of research including issues of European and Euro-Atlantic integration.
PC6	The ability to substantiate and prepare economic decisions based on understanding the patterns of development of socio-economic systems and processes using mathematical methods and models.
PC7	Ability to initiate, develop and implement complex scientific projects in the economy and related interdisciplinary approaches, to show leadership and responsibility during their implementation; commercialize the results of scientific research and ensure compliance with intellectual property rights.
7 – Program study results	
TR 1	Have advanced conceptual and methodological knowledge of economics, management of socio-economic systems and at the border of subject areas, as well as research skills sufficient to conduct fundamental and applied research at the level of world achievements in the relevant field.
TR 2	To deeply understand the basic (fundamental) principles and methods of economic sciences, as well as the methodology of scientific research, to create new knowledge in the field of economics in order to achieve economic and social development in the conditions of globalization.
TR 3	Develop and research fundamental and applied models of socio-economic processes and systems, effectively use them to gain new knowledge and / or create innovative products in economics and related interdisciplinary areas.
TR 4	Apply modern tools and technologies for searching, processing and analyzing information, in particular, statistical methods for analyzing large data sets and/or complex structures, specialized software and information systems.
TR 5	Propose new solutions, develop and scientific projects that provide an opportunity to rethink existing and create new integral knowledge and/or professional practice and solve significant and fundamental and applied problems of economic science, taking into account social, economic, environmental and legal aspects; to ensure the commercialization of the results of scientific research and the observance of intellectual property rights.
TR 6	Freely present and discuss with specialists and non-specialists the results of research, theoretical and practical problems of economics in state and foreign languages, qualified to reflect the results of research in scientific publications in leading scientific journals.
TR 7	Apply innovative scientific and pedagogical technologies, formulate the content, learning objectives, ways to achieve them, forms of control, be responsible for the effectiveness of the educational process in compliance with the norms of academic ethics and integrity.
TR 8	Plan and carry out empirical and/or theoretical research in the field of economics and related interdisciplinary areas, critically analyze the results of own research and the results of other researchers in the context of the entire complex of modern knowledge regarding the researched problem.
TR 9	Formulate and test hypotheses; use appropriate evidence to substantiate the conclusions, in particular, the results of theoretical analysis, empirical research and mathematical and/or computer modeling, available literature data.

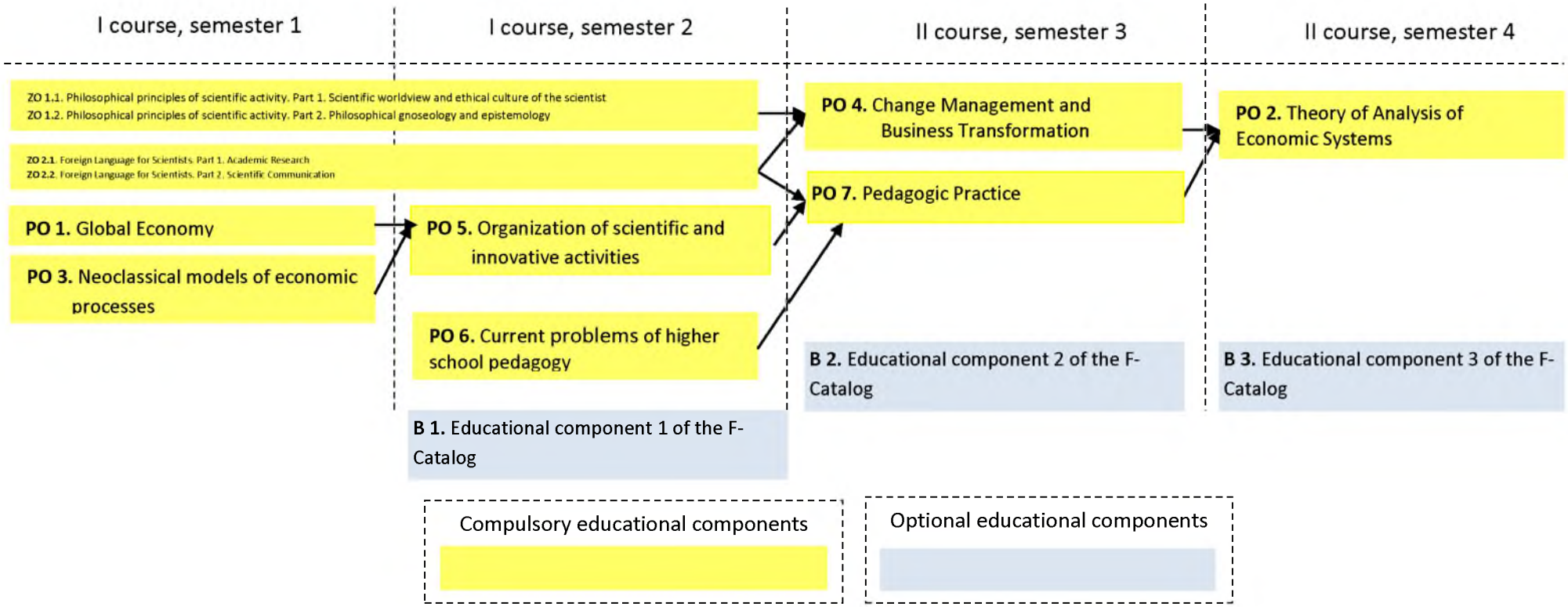
8 – Resource support for program implementation	
Staff assistance	In accordance with the personnel requirements for ensuring the implementation of educational activities for the relevant level of HE, approved by the Resolution of the Cabinet of Ministers of Ukraine dated 30.12.2015 № 1187 (current) as amended on 23.05.2018 № 347. Teaching of economic disciplines with appropriate methodological support is carried out by highly qualified teachers, including: 6 doctors of sciences and 14 candidates of sciences (Department of International Economics), 2 doctors of sciences and 9 candidates of sciences (Department of Mathematical Modeling of Economic Systems), 5 doctors of sciences and 20 candidates of sciences, 4 senior teachers (Department of Economics and Entrepreneurship) , 3 doctors of sciences and 11 candidates of sciences (department of theoretical and applied economics).
Material and technical support	In accordance with the technological requirements for material and technical support of educational activities of the relevant level of HE, approved by the Resolution of the Cabinet of Ministers of Ukraine dated 30.12.2015 № 1187 (current) in the wording dated 23.05.2018 № 347. Material and technical support of 4 departments that provide ONP "Economy" have: training facilities with a total area of 30 to 50 m^2. The departments have specialized lecture halls (equipped with modern multimedia equipment), as well as classes for independent work of students.
Information and methodological support	In accordance with the technological requirements for educational and methodological and information support of educational activities of the relevant level of HE, approved by the Resolution of the Cabinet of Ministers of Ukraine dated 30.12.2015 № 1187 (current) as amended on 23.05.2018 № 347. Use of the Scientific and Technical Library of Igor Sikorsky Kyiv Popytechnic Institute. Educational and methodological support of disciplines is determined by teachers and departments (group of educational and scientific program support), based on the need to provide students with all the information and materials necessary for successful study. These are textbooks and manuals, as well as author's materials developed by the teacher: lecture notes, guidelines and recommendations; individual tasks; collections of situational tasks (cases), examples of solving typical tasks or performing typical tasks; computer presentations; illustrative materials; resource directories. Teachers of departments can provide students with links to available scientific, educational and methodological literature, as well as electronic resources and other sources of information, including foreign and international, which have the permission of the copyright owner for free use in the educational process. As sources of information recommended to students (graduate students) available to them: printed scientific, educational and methodological, popular science and other publications; electronic publications; open state registers; published documents and official websites of statistical bodies, other institutions and organizations; open databases; audio and video recordings, other materials and sources of information. Namely: the use of a wide list of databases, open access to which is carried out from the Igor Sikorsky Kyiv Popytechnic Institute Library. These databases include the world-famous database SCOPUS, Web of Science, as well as other databases in the field of economics: Business Source Premier (EBSCO Publishing), RePEc (Research Papers in Economics), UNdata (Social Science Research Network), etc. Full list of available databases at the link URL: https://www.library.kpi.ua/resources/databases/.

9 – Academic mobility	
National credit mobility	In order to exercise the right of the higher education applicant to an individual educational trajectory (Regulations on the individual curriculum of the higher education applicant https://osvita.kpi.ua/node/117) Igor Sikorsky Kyiv Popytechnic Institute provides an opportunity on the basis of relevant regulations (Regulations on recognition in Igor Sikorsky Kyiv Popytechnic Institute of the results of previous training https://osvita.kpi.ua/node/181, Regulations on academic mobility Igor Sikorsky Kyiv Popytechnic Institute https://osvita.kpi.ua/node/124) use educational offers domestic free economic zones. To date, agreements have been concluded with Odessa Polytechnic State University and Lviv Polytechnic National University. The possibility of concluding agreements on academic exchange programs with other partners is considered. Recognition of learning outcomes under credit mobility programs is based on curricula and / or their individual parts (credit modules / disciplines) agreed with partner universities and on the basis of the European Credit Transfer and Accumulation System.
International credit mobility	In order to internationalize the activities of the university and realize the right of the higher education applicant to an individual educational trajectory (Regulations on the individual curriculum of the higher education applicant https://osvita.kpi.ua/node/117) Igor Sikorsky Kyiv Popytechnic Institute provides an opportunity based on relevant regulations documents (documents http://mobilnist.kpi.ua/documents) to use educational offers of foreign free economic zones. Existing agreements on international academic mobility - in particular, the "Programs" tab on the website of the Department of Academic Mobility http://mobilnist.kpi.ua/# and the Erasmus + program: http://mobilnist.kpi.ua/creditna-mobilnist/, namely for PhDs in Economics from the Friedrich Schiller University of Jena, the Federal Republic of Germany and the University of Oradea, Romania. Applicants can choose from various international events - also possible participation of third-level applicants in the project "Educational cooperation of the Norwegian University of Natural and Technical Sciences and Igor Sikorsky Kyiv Popytechnic Institute in the Fourth Industrial Revolution" under the Eurasia program https: // ipd. kpi.ua/presentations-uk-norw-summer-school/ (https://ipd.kpi.ua/ongoing-projects/). The project is included in the list of the most important projects of the university https://kpi.ua/collaboration and provides for short-term (1 week) visits of four graduate students from Igor Sikorsky Kyiv Popytechnic Institute until 2022. The possibility of concluding agreements on academic exchange programs with other partners is considered.
Training of foreign applicants	Training is carried out in English

2. COMPONENTS LIST OF THE EDUCATIONAL PROGRAM

Code	Components of the educational program (disciplines, course projects / works, practice, qualification work)	Number of ECTS credits	Form of final control
1. Compulsory educational components			
ZO 1.1	Philosophical principles of scientific activity. Part 1. Scientific worldview and ethical culture of the scientist	2	Test
ZO 1.2	Philosophical principles of scientific activity. Part 2. Philosophical gnoseology and epistemology	4	Exam
ZO 2.1	Foreign Language for Scientists. Part 1. Academic Research	3	Test
ZO 2.2	Foreign Language for Scientists. Part 2. Scientific Communication	3	Exam
PO 1	Global Economy	4	Exam
PO 2	Theory of Analysis of Economic Systems	4	Exam
PO 3	Neoclassical models of economic processes	4	Exam
PO 4	Change Management and Business Transformation	4	Exam
PO 5	Organization of scientific and innovative activities	4	Test
PO 6	Current problems of higher school pedagogy	2	Test
PO 7	Pedagogic Practice	2	Test
2. Optional educational components			
B 1	Educational component 1 of the F-Catalog	4	Test
B 2	Educational component 2 of the F-Catalog	5	Test
B 3	Educational component 3 of the F-Catalog	5	Test
TOTAL IN COMPULSORY educational components:		**36**	
TOTAL IN SELECTIVE educational components:		**14**	
TOTAL OF THE EDUCATIONAL PROGRAM		**50**	

3. STRUCTURAL AND LOGICAL SCHEME OF THE EDUCATIONAL COMPONENT OF THE EDUCATIONAL AND SCIENTIFIC PROGRAM



4. SCIENTIFIC COMPOSITION

Year training	The content of the graduate student's scientific work	Form of control
1 year	Choice and substantiation of the topic of own research, determination of the content, terms of performance and volume of scientific works; selection and substantiation of the methodology of own research, review and analysis of existing views and approaches that have developed in modern science in the chosen field. Preparation and publication of at least 1 article (usually a review) in scientific professional publications (domestic or foreign) on the research topic; participation in scientific and practical conferences (seminars) with the publication of abstracts.	Approval of the individual plan of the graduate student's work at the academic council of the institute / faculty, reporting on the progress of the individual graduate student's plan twice a year
2 year	Conducting own research under the guidance of the supervisor, which involves solving research problems through the use of a set of theoretical and empirical methods. Preparation and publication of at least 1 article in scientific professional publications (domestic or foreign) on the research topic; participation in scientific and practical conferences (seminars) with the publication of abstracts.	Reporting on the progress of the individual graduate student's plan twice a year.
3 year	Analysis and generalization of the obtained results of own scientific research; substantiation of scientific novelty of the obtained results, their theoretical and / or practical significance. Preparation and publication of at least the 1st article in scientific professional publications on the research topic; participation in scientific and practical conferences (seminars) with the publication of abstracts.	Reporting on the progress of the individual graduate student's plan twice a year.
4 year	Registration of scientific achievements of the post-graduate student in the form of the dissertation, summing up concerning completeness of coverage of results of the dissertation in scientific articles according to the current requirements. Implementation of the obtained results and receipt of supporting documents. Submission of documents for preliminary examination of the dissertation. Preparation of a scientific report for final certification (defense of the dissertation).	Reporting on the progress of the individual graduate student's plan twice a year. Providing an opinion on the scientific novelty, theoretical and practical significance of the dissertation results. Dissertation defense.

5. FORM OF GRADUATE CERTIFICATION OF HIGHER EDUCATION APPLICANTS

Certification forms of higher education applicants	Certification of applicants for higher education in the educational and scientific program Economics is carried out on the basis of analysis of academic performance, evaluation of the quality of solutions by applicants for higher education tasks. Certification of candidates for the educational level of Doctor of Philosophy is carried out in the form of public defense of the dissertation and ends with the issuance of a standard document on the award of the degree of Doctor of Philosophy with the qualification "Doctor of Philosophy in Economics".
Requirements for obtaining the degree of Doctor of Philosophy	The dissertation for obtaining the degree of Doctor of Philosophy is an independent comprehensive study that proposes a solution to a complex problem in the field of economics or on its border with other specialties, which involves a deep rethinking of existing and the creation of new holistic knowledge and/or professional practice. The dissertation should not contain academic plagiarism, falsification, or fabrication. The dissertation must be posted on the website of the institution of higher education (scientific institution).
Requirements for public protection (demonstrations)	Requirements for the procedure and special conditions for conducting public protection are determined by the Cabinet of Ministers of Ukraine.

6. MATRIX OF CONFORMITY A PROGRAM COMPETENCIES TO THE COMPONENTS OF THE EDUCATIONAL AND SCIENTIFIC PROGRAM

	ZO 1.1/ ZO 1.2	ZO 2.1/ ZO 2.2	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	Scientific component
GC 1	+									+
GC 2	+	+	+							+
GC 3		+	+							+
GC 4	+						+			
GC 5	+			+						
GC 6		+								+
PC 1			+		+	+	+			+
PC 2		+					+			+
PC 3					+					+
PC 4							+	+	+	+
PC 5				+	+					+
PC 6				+	+					+
PC 7	+					+	+	+	+	+

7. MATRIX OF PROVIDING PROGRAM LEARNING RESULTS BY RELEVANT COMPONENTS OF THE THE EDUCATIONAL AND SCIENTIFIC PROGRAM

	ZO 1.1/ ZO 1.2	ZO 2.1/ ZO 2.2	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	Scientific component
TR 1	+	+	+	+	+	+	+			+
TR 2	+	+	+	+	+		+	+	+	+
TR 3	+	+	+	+	+	+	+			+
TR 4	+	+			+					+
TR 5	+	+	+	+	+	+	+		+	+
TR 6		+			+	+	+	+	+	+
TR 7	+				+			+	+	+
TR 8							+			
TR 9					+	+				