

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
CHERNIHIV NATIONAL UNIVERSITY OF TECHNOLOGY
EDUCATIONAL-SCIENTIFIC INSTITUTE OF ECONOMICS**



**EDUCATIONAL AND SCIENTIFIC PROGRAM
ECONOMICS**

Of the third level of higher education

in the specialty 051 “Economics”

Field of Study 05 “Social and Behavioral Sciences”

Qualification: PhD

APPROVED BY THE ACADEMIC BOARD

The Head of the Academic Board

_____ / S. Shkarlet/

(Protocol No. _____ of _____)

The study program is put into operation from September 01, 20_____

Rector _____ / S. Shkarlet/

(Order No. _____ of _____)

Chernihiv 2016

PREFACE

Educational and scientific program 'Economics' for training students of the third level of higher education in the specialty 051 Economics contains the requirements for those who can take up the training, the list of academic disciplines and their logical sequence, the amount of ECTS credits necessary to complete the program, intended learning outcomes (competences) acquired by a higher education student.

Developed by the working group of the specialty 051 'Economics' including:

1. V. Marhasova, Doctor of Economic Sciences, Professor, the Head of the Department of Accounting, Taxation and Audit;
2. S.Shkarlet, Doctor of Economic Sciences, Professor, Rector of CNUT
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4. A. Fedorenko, PhD in Economics, Director of Soft-Industry

1. Profile of the study program ‘Economics’

1.1 General information	
Full name of a higher education institution and structural unit	Chernihiv National University of Technology Educational-Scientific Institute of Economics Department of Theoretical and Applied Economics
Higher education degree and title in the original language	Level of higher education – 3 Degree – PhD Field of Study – 51 ‘Social and Behavioral Sciences’ Specialty – 051 ‘Economics’ Educational and scientific program ‘Economics’
Official title of the study program	Educational and scientific program ‘Economics’ for training doctors of philosophy in the specialty ‘Economics’
Type of diploma and volume of the study program	PhD Diploma, individual, 60 ECTS credits Term of study is 4 academic years
Accreditation availability	
Cycle/level	National Qualification Framework – the 9 th level (PhD)
Prerequisites	Master’s degree
Language(s) of teaching	Ukrainian, English
Duration of the study program	
An Internet address for a permanent description of the study -program	http://www.stu.cn.ua/index.html
1.2 The purpose of the study program	
To provide the training for scientific and scientific-pedagogical personnel in the sphere of economy by their acquiring competences sufficient to conduct original scientific research, the results of which are of scientific novelty, theoretical and practical importance, to defend their dissertations and perform scientific-pedagogical activity.	
1.3 Characteristics of the study program	
Subject field (field of study, specialty, specialization (if available))	The amount of training modules is 75%, of which: general training disciplines are 45%, professional training disciplines are 25%, and practical training is 5%. Optional disciplines are 25%.
Description of the subject field	<p>The object of study is identification and substantiation of the current issues of social-economic systems management at macro-, meso-, and micro level; development and practical implementation of original scientific research, the results of which are of scientific novelty, theoretical and practical importance, preparation and defense of dissertations.</p> <p>The objectives include providing the training for scientific and scientific-pedagogical personnel in the sphere of economy by their acquiring competences sufficient to conduct original scientific research, the results of which are of scientific novelty, theoretical and practical importance, to defend their dissertations and perform scientific-pedagogical activity.</p> <p>Theoretical content of the subject field includes terms, categories, paradigms and concepts, principles of economic sciences</p> <p>Methods and techniques: general scientific methods, mathematical and statistical methods of economic analysis, economic and mathematical</p>

	modeling, information and communication technologies of research, and presentations of the results of scientific research.
	Social-economic and information-technological support of the educational process: stipends, dormitories, social infrastructure of the university, consultations on employment, assistance in solving problem situations, support for PhD students with special needs, academic support, which includes consultations on choosing the direction of scientific research, optional disciplines, and individual consultations.
Aspect of the study program	Research and applied. Scientific research in generating new knowledge and developing efficient mechanisms of strategic development functioning and social-economic systems management at macro and micro levels that will be widely applied into practice, as they are based on modern trends of national economy development.
The main focus of the study program and specialization	The program focuses on expanding and deepening theoretical, methodological and scientific basis of the development of national, sectoral and production social-economic systems; mastering the techniques of scientific research in the field of economics and concentrating on cooperation with the institutions of the National Academy of Sciences of Ukraine, business sector, foreign scientists and scholarship activity.
The volume of the study program measured in ECTS credits	The volume of the study program consists of 60 ECTS credits.
Features of the program:	The independent work of students is organized with the help of Moodle distant learning system.
1.4 Suitability of graduates for employment and further education	
Suitability of graduates for employment	<p>Scientific and teaching activity in the field of economics. Scientific, administrative and managerial activity in educational institutions, establishments of state and territorial-administrative systems and business sector.</p> <p>Positions according to the Classifier of professions of Ukraine: Legislators, senior public officials, administrators, managers. Chief executives of enterprises, institutions and organizations (12): Chief executives of enterprises, institutions and organizations (Director) (1210.1), managers of production units in industry (1222), managers of different major units (Manager) (1229.1), managers of functional units (Manager) (1231), head of research unit (1237), chief specialist of the research unit (1237.1), Project and program supervisor (1238), manager of other functional units (1239), chief executives of small enterprises (director) (13). Business and management consultant (1475.4). Professionals: teachers of higher educational institutions (2310): Doctoral student, Associate Professor, Professor of the department (2310.1), assistant, lecturer of a higher education institution (2310.2). Other professionals (24): professionals in the field of public service, audit, accounting, labor and employment, marketing, intellectual property and innovative activity (241): professionals in the field of labor and employment, Інші професіоналі (24): Researcher in the field of labor and employment (2412.1), Consultant, specialist in innovative activity, Specialist in intellectual property, specialist in economic modeling of economic systems, specialist in certification, standardization and quality (2419.2); Researcher in marketing, business efficiency, intellectual property</p>

	<p>and innovative activity (2419.1), researcher in the field of economics (2441.1), researcher in the field of project and program management (2447.1)</p> <p>Places of employment. Positions in departments and laboratories of scientific institutions, specialized departments of universities. Relevant jobs (research and management) for businesses, institutions and organizations.</p>
Academic rights of graduates	<p>Lifelong learning for development and self-improvement in scientific and professional fields, as well as in other related fields of scientific knowledge:</p> <ul style="list-style-type: none"> - training at the 9th qualification level of the National Qualification Framework in Economics (National Qualification Framework –the 9th level, FQEHEA – the 4th cycle, EQF-LLL the 9th level); - training at the 8th level of the National Qualification Framework in the related specialties (National Qualification Framework –the 8th level, FQEHEA – the 3rd cycle, EQF-LLL the 8th level); - educational program, research grants and scholarships that contain additional scientific and educational components
1.5 Teaching and assessment	
Teaching and learning	<p>The main approaches to teaching and learning:</p> <ul style="list-style-type: none"> - lectures, seminars and consultations; - an independent work with information sources in the university’s library; - distant learning and the use of resources from the Internet; - cooperation of students of different years of study and with their scientific leaders - individual consultations; - involvement of leading specialists in the professional field in advising graduate students - informational support for the participation of graduate students in competitions for scholarships and grants; - an active work of PhD students in project teams when carrying out topics supported by the state, participation in developing reporting materials, registration and accounting documents, registration of patents and copyright certificates
Assessment	<p>Students’ knowledge evaluation includes continuous and final assessment.</p> <p>Continuous assessment is carried out in the form of test, work during practical classes, presentations at seminars and conferences, preparation of scientific reports.</p> <p>Final assessment is carried out in the form of oral exam-differentiated test. PhD student is allowed to take the final assessment (exam/differentiated test) if he/she completed all the types of work provided by the study plan.</p> <p>PhD students undergo an annual examination by reporting to the Scientific Council of CNUT about the progress of the study program and the individual plan including published scientific articles and presentations at conferences</p> <p>The final result of studying is the full completion of the study program, a sufficient number of scientific works published according to the results of research, registered participation in completing registered topics of scientific research, a properly compiled dissertation and its presentation at scientific-methodological seminar or submission to be viewed by the academic council to obtain the scientific degree of Doctor of Philosophy.</p>
1.6 The study program competences	
Integral competence (IC)	<p>the ability to solve complex problems in the field of professional and/or research and innovative activity that involves a deep reconsideration and generation of a comprehensive knowledge of the economic field</p>

<p>General competences (GC)</p>	<p>GC 1. Research skills. Competence to conduct scientific research at the PhD level, make informed decisions, solve problems as well as scientific and applied tasks. The ability of abstract thinking, analysis, synthesis. The ability to use modern information technologies, computer equipment and programs</p> <p>GC 2. Creativity. The ability to generate new scientific, theoretical and practical ideas, search for own ways to solve a problem. The ability to identify contradictions and unsolved earlier tasks, formulate and test scientific hypotheses. The ability to apply knowledge into practice.</p> <p>GC 3. Communicative skills. The ability to understand foreign professional texts, use foreign language for presenting scientific results in oral or written form, speak the foreign language in an international scientific and professional environment.</p> <p>GC 4. Team and project work. Competence in developing, planning and implementing research and innovative projects and programs. The ability to work in a scientific and professional team observing ethical rules. The ability to show leadership skills, evaluate and ensure the quality of works performed, initiate and implement projects.</p> <p>GC 5. The ability to work independently, be critical and self-critical. The ability to search for own ways to solve a problem, to perceive critically and analyzes other people’s thoughts and ideas, review published works, analyze one’s own works.</p> <p>GC 6. Teaching skills. Competence in pedagogical activity concerning teaching, education, development and professional training of students.</p>
<p>Professional competences (PC)</p>	<p>PC 1. Research skills in the field of economics. Competence in being familiar with the current state, development trends and a scientific picture of the economic field. Competence in identifying, setting and solving current scientific tasks and issues in this field. The ability to conduct an original research corresponding to the national and international levels. The ability of time management and planning the contents of a dissertation.</p> <p>PC 2. Technological skills. The ability to apply modern modeling and forecasting methods using advanced applications, computer systems and networks, software products to generate new knowledge, obtain scientific and practical results in the field of economics</p> <p>PC 3. The ability to criticize and evaluate. Competence in conducting a critical analysis of different information sources related to the dissertation topic. Competence in public speaking and presenting the results of scientific research. The ability to participate in international discussions in the field of economics, to express and advocate for one’s own point of view. The ability to substantiate the results obtained.</p> <p>PC 4. Innovation and professionalism. The ability to generate business idea and initiate the implementation of the research results. Competence in using innovative methods of teaching economic disciplines.</p>
<p>1.7 Intended learning outcomes (ILO)</p>	
<p>Knowledge and understanding:</p>	<p>ILO 1. Knowledge and understanding of research methods, abilities and skills to use PhD research methods.</p> <p>ILO 2. Knowledge and understanding of the foreign language, skills in presenting scientific results in oral and written forms, understanding of scientific and professional texts, skills to communicate in a foreign scientific and professional environment; be able to work in an international context.</p> <p>ILO 3. Knowledge and understanding of the theory and methodology of systematic analysis, application of systematic approach in the study of economic processes, development of social-economic systems; the ability to use the methodology of systematic analysis in the field of economics; the</p>

	<p>ability and skills to use the principles of systematic analysis in the management of economic systems.</p> <p>ILO 4. Knowledge and understanding of modern management theories and evolution of specific management functions under the influence of scientific and technological progress; objective pattern, goals, social-economic conditions of management of modern organizational structures.</p> <p>ILO 5. Knowledge and understanding of methodological bases of functioning of the regulation mechanism of national economy; methods, forms and means for implementing the regulation of the national economy; features of state regulation of social-economic systems of different levels of hierarchy.</p> <p>ILO 6. Knowledge and understanding of the basic theories of growth and development, evolution of scientific knowledge in the field of change management; conducting a critical analysis of changes in a business entity; the ability to generate, select and justify ways to develop a business entity.</p> <p>ILO 7. Knowledge and understanding of models of social-economic development, identification of tendencies and key priority areas of economic development, formulation of economic policy's direction.</p> <p>ILO 8. Knowledge and understanding of general concepts and stages of mathematical modeling of social-economic systems and processes; basics of optimal (mathematical) programming; essence of methods of mathematical-statistical analysis and forecasting of economic dynamics; problem solving on the basis of formulated models both by analytical methods and using computers; mathematical apparatus for the study of a wide range of typical and applied problems of economic analysis and decision-making.</p> <p>ILO 9. Knowledge, understanding, abilities and skills in using citation rules and references to sources used, rules of bibliographic design, understanding of the content and procedure for calculating basic quantitative scientometric indicators of scientific activity efficiency (citation index, h-index, impact factor).</p> <p>ILO 10. Knowledge and understanding of the structure of higher education in Ukraine, specifics of professional and pedagogical activity of the teacher at a higher education institution.</p>
<p>Skills</p>	<p>ILO 11. Skills in using statistical methods of analysis to identify the development trends of research objects.</p> <p>ILO 12. Skills in following the latest developments in the professional field and finding scientific sources relevant to the field of scientific interests of a PhD student, working with different sources, searching, processing, analyzing and synthesizing the information obtained.</p> <p>ILO 13. Skills in working with modern bibliographic and referential data bases as well as with databases platforms (Scopus, Web of Science, Web of Knowledge, Astrophysics, PubMed, Mathematics, Springer, Agris, GeoRef).</p> <p>ILO 14. Skills in understanding scientific articles in the field of the chosen specialty, analyzing information sources, identifying contradictions and tasks (problems) or parts of them that have not been solved previously, formulating scientific hypotheses.</p> <p>ILO 15. Skills in organizing creative activities and the process of scientific research, using modern technologies of scientific work, evaluating and ensuring the quality of work performed.</p> <p>ILO 16. Skills in perceiving and analyzing other people's thoughts and ideas critically, finding one's own ways to solve problems, analyzing one's own materials critically, generating new ideas, making informed decisions.</p> <p>ILO 17. Skills in developing and implementing projects and programs of</p>

	<p>processes and systems, as well as their structure-forming elements in the field of economic sciences.</p> <p>ILO 18. Knowledge and skills in using legislative and regulatory support of higher education, modern means and technologies of organization and implementation of educational process, various aspects of educational work with students, innovative teaching methods.</p> <p>ILO 19. Skills in organizing creative activity, writing articles and reports, performing independent original and publishable research in the field of social and behavioral sciences of economic direction, exploring and comprehending various relationships and interactions thoroughly (technological, organizational, legal, etc.) within economic sciences, conducting research to improve their efficiency, organizing self-examination on the compliance of the dissertation materials with the established requirements.</p> <p>ILO 20. Skills in analyzing specific educational, scientific and professional texts in the field of the chosen specialty, identifying theoretical and practical problems as well as controversial issues in educational, scientific and professional texts in the field of economic sciences; skills in identifying, setting and solving scientific tasks and problems.</p> <p>ILO 21. Skills in identifying complicated problems in the field of economic science and business practice; applying the acquired theoretical knowledge to solve specific business problems at micro, meso and macro levels; pointing out strategic priorities of the national economy development taking into account best world practices of civilizational transformations.</p> <p>ILO 22. Skills in applying methods for economic diagnosis of social-economic development of national and regional economic systems;</p> <p>ILO 23. Skills in evaluating resistance level of social-economic systems to external and internal threats; choosing appropriate methods for monitoring the development of social-economic systems of different levels.</p>
Communication	<p>ILO 24. Skills in communicating with a wide scientific community and public in the field of scientific and/or professional activity with the purpose of (1) discussing controversial issues, research results and coordinating actions and joint work at conferences, scientific seminars; (2) bringing research results and innovations to colleagues; (3) presenting, defending the research results, discussing them with the scientific and professional community; (4) using modern means of visual presentation of research results.</p> <p>ILO 25. To be a part of public society, scientific community, to accept the rule of law especially in the professional activity, to understand and be able to exercise one's own rights and freedoms, show respect to rights and freedoms of other people</p> <p>ILO 26. Skills in arranging and conducting conferences, round-table discussions, and seminars using the native or foreign languages</p> <p>ILO 27. To be able to use communication technologies to maintain harmonious business and personal contacts as a prerequisite for business success.</p>
1.8 Resources for the program implementation	
Human resources	Doctors of Sciences and PhD
Material and technical resources	Sixteen educational buildings, the cultural and educational center 'Peremoha', workshops, dormitories, garages and canteens. The total area of all buildings is 83156,6 m ² , the area of educational rooms is 45975,1 m ² . The average area per a student is 16 m ² . The area of sports facilities is 14256,4

	<p>m², the sports and recreational facility seats 135 people, is equipped with a sports hall, swimming pool (360 m²), and two saunas. All premises and buildings are in a good sanitary condition. There are also modern computer technologies with access to the Internet (including Wi-Fi).</p>
Information and academic resources	<p>The educational process is fully provided with information sources. The University has its own library network, which provides students with sufficient amount of educational and methodical literature. In addition, all educational buildings and student dormitories are connected to the Internet, which students can access through computers from study rooms and libraries, and from their own electronic devices via Wi-Fi.</p>

2. List of Components of Educational and Professional Program and Their Logical Sequence

2.1 List of components

No.	The study program components (academic disciplines, course projects (papers), practices, qualification work	ECTS-credits	Form of examination
1	2	3	4
Compulsory Components (CC)			
General training cycle			
CC 1.	Philosophy	6	pass-fail test exam
CC 2.	English for Scientific Communication	12	pass-fail test exam
CC 3.	Methodology, Organization and Technology of Scientific Research	9	pass-fail test exam
Professional training cycle			
CC 4.	Current Problems of Economic Theory	3	pass-fail test
CC 5.	Modern Problems of Development of Ukrainian Economy	3	pass-fail test
CC 6.	Modelling and Forecasting of Social-Economic Systems Development	3	pass-fail test
CC 7.	Economic Diagnostics	3	pass-fail test
CC 8.	Problems of Economy and Management of Modern Organizational Structures	3	pass-fail test
Total of compulsory components:		42	
Optional Components (OC)			
Professional training cycle			
OC 1.1.	Methods and Models of Regulation of National Economy Development	5	pass-fail test
OC 1.2.	Modern Models of State Regulation of Social-Economic Systems		
OC 1.3.	Changes and Development Management of Business Entities	5	pass-fail test
OC 1.4.	Functioning of Economic Systems at the Micro Level		
OC 1.5.	Economic Security of the National Economy	5	pass-fail test
OC 1.6.	Monitoring of social-Economic Development of the State		
Total of optional components:		15	
CC 9. Practical training		3	
OVERALL TOTAL		60	

2.2 Structural and Logical Scheme

Semester	Type of educational activity
1 – 12 credits	Compulsory disciplines (general training cycle) Compulsory component (herein after – CC) 1 (3 credits), CC2 (3 credits), CC3 (3 credits) Compulsory disciplines (professional training cycle) CC4 (3 credits)
2 – 12 credits	Compulsory disciplines (general training cycle) CC1 (3 credits), CC2 (3 credits), CC3 (3 credits) Compulsory disciplines (professional training cycle) CC5 (3 credits)
3 – 14 credits	Compulsory disciplines (general training cycle) CC2 (3 credits), CC3 (3 credits) Compulsory disciplines (professional training cycle) CC7 (3 credits) Optional disciplines Optional component (herein after – OC) 1.1/1.2 (5 credits)
4 – 9 credits	Compulsory disciplines (general training cycle) CC2 (3 credits) Compulsory disciplines (professional training cycle) CC6 (3 credits), CC8 (3 credits)
5 – 5 credits	Optional disciplines OC1.3/1.4 (5 credits)
6 – 5 credits	Optional disciplines OC1.5/1.6 (5 credits)
7 – 3 credits	Educational-pedagogical practice (CC9) (3 credits)

4. Consistency Matrix of Program Competences with Compulsory Components of the Study Program

	Competences								
	CC-1	CC-2	CC-3	CC-4	CC-5	CC-6	CC-7	CC-8	CC-9
GC-1	+		+			+	+		+
GC-2			+	+	+	+	+	+	+
GC-3		+	+						+
GC-4			+	+	+	+	+	+	
GC-5			+				+		
GC-6			+						+
PC-1				+	+				
PC-2				+	+	+	+		
PC-3	+		+	+	+	+	+	+	
PC-4			+						

4.1 Consistency Matrix of Program Competences with Optional Components of the Study Program

	Competences					
	OC 1.1	OC 1.2	OC 1.3	OC 1.4	OC 1.5	OC 1.6
GC-1						
GC-2						
GC-3						
GC-4	+	+	+	+	+	+
GC-5	+	+	+	+	+	+
GC-6						
PC-1	+		+			
PC-2	+	+	+	+	+	+
PC-3	+	+	+	+	+	+
PC-4			+	+	+	+

5. Matrix of Providing Intended Learning Outcomes (ILO) with Compulsory Components of the Study Program

	Intended learning outcomes								
	CC-1	CC-2	CC-3	CC-4	CC-5	CC-6	CC-7	CC-8	CC-9
ILO1			+	+	+	+	+	+	
ILO2		+							
ILO3				+	+	+	+	+	
ILO4								+	
ILO5						+			
ILO6							+	+	
ILO7						+			
ILO8						+	+		
ILO9			+						+
ILO10			+						+
ILO11						+	+		
ILO12			+						+
ILO13			+						+
ILO14			+						+
ILO15			+	+	+	+	+	+	+
ILO16	+		+						+
ILO17			+			+		+	
ILO18									+
ILO19			+	+					
ILO20									+
ILO21				+	+			+	
ILO22						+	+		
ILO23					+	+			
ILO24		+	+						+

ILO25			+						+
ILO26		+	+						+
ILO27			+						+

5.1 Matrix of Providing Intended Learning Outcomes (ILO) with Optional Components of the Study Program

	Intended learning outcomes					
	OC 1.1	OC 1.2	OC 1.3	OC 1.4	OC 1.5	OC 1.6
ILO1	+	+	+	+	+	+
ILO2						
ILO3	+	+	+	+	+	+
ILO4			+		+	+
ILO5	+	+			+	+
ILO6	+		+	+		+
ILO7	+	+				
ILO8	+					+
ILO9		+	+	+		+
ILO10						
ILO11						
ILO12						
ILO13						
ILO14						
ILO15	+	+	+	+	+	+
ILO16						
ILO17			+			+
ILO18						
ILO19						
ILO20	+	+	+	+	+	+
ILO21		+		+	+	
ILO22	+				+	
ILO23					+	+
ILO24						
ILO25						
ILO26						
ILO27						