MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

STATE BIOTECHNOLOGICAL UNIVERSITY

EDUCATIONAL - SCIENTIFIC PROGRAM "MANAGEMENT"

HIGHER EDUCATION LEVEL – Third

HIGHER EDUCATION DEGREE – Doctor of Philosophy

SPECIALTY – D 3 Management

FIELD OF KNOWLEDGE – D Business, Administration and Law

ACADEMIC QUALIFICATION – Doctor of Philosophy in Management

APPROVED BY THE ACADEMIC COUNCIL
State Biotechnological University
protocol no.__from " ___" _____20 2_ years)
and is put into effect from " 01 " September 2025

Acting Rector

_____/ Andriy KUDRYASHOV /

Kharkiv – 2025

PREFACE

Accredited by the National Agency for Quality Assurance in Higher Education

Date of issue of the certificate of accreditation of the educational program 12/30/2021

Expiration date of the certificate of accreditation of the educational program 01.07.2027 No. 2868

The educational and scientific program was first introduced on September 1, 2016 and approved Academic Council of the Petro Vasylenko Kharkiv National Technical University of Agriculture dated "_28_" April 2016. Minutes No. 8

Educational program guarantor

Olga Mykolayivna Girzheva – Doctor of Economic Sciences, Professor, Professor of the Department of Management, Business and Administration

Developed by a project team consisting of:

1. Nataliya Ivanivna Ryzhykova - Doctor of Economic Sciences, Professor, Professor of the Department of Accounting, Auditing and Taxation;

2. Tamila Ivanivna Oliynyk - Doctor of Economic Sciences, Associate Professor, Associate Professor of the Department of Management, Business and Administration;

3. Prykhodko Maksym Kostyantynovich – applicant for the third (educational and scientific) level of education.

Reviews and feedback from external stakeholders [1]:

1. Director of the National Research Center "Institute of Agrarian Economics", Doctor of Economic Sciences, Professor, Academician of the NAAS Yu.O. Lupenko;

2. Vice-Rector for Scientific Work of SNAU, Doctor of Economic Sciences, Professor Yu.I. Danko;

[1]Reviews are provided for the ONP Management of KhNTUSG, which successfully passed accreditation in 2021.

3. Professor of the Department of Management named after Professor Y.S. Zavadskyi, NUBiP of Ukraine, Doctor of Economic Sciences, Professor N.P. Reznik;

4. Director of LLC "Gagarin Agrofirma" S.M. Mykytchenko

PROFILE OF THE EDUCATIONAL AND SCIENTIFIC PROGRAM " MANAGEMENT"
IN SPECIALTY 073 "MANAGEMENT"

1 – General information	
Full name of the higher education institution and structural unit	State Biotechnological University Faculty of Management, Administration and Law Department of Management, Business and Administration
Level of higher education	Third (educational and scientific) level
Higher education degree	Doctor of Philosophy
Discipline	D Business, Administration and Law
Specialty	D 3 Management
Educational qualification	Doctor of Philosophy in Management
Level with NQF Cycle/level	NQF of Ukraine – level 8 *FQ-EHEA – third cycle,* *EQF-LLL – level 8*
Official name of the educational program	Educational and scientific program "Management" of the third (educational and scientific) level of higher education
Availability of accreditation	Accredited by the National Agency for Quality Assurance in Higher Education, Ukraine Date of issue of the certificate of accreditation of the educational program 12/30/2021 The validity period of the certificate of accreditation of the educational program is until 01.07.2027 No. 2868
Type of qualifying work and scope of educational program	Doctor of Philosophy diploma, single, the volume of the educational and scientific program is 60 ECTS credits of the educational component and 180 credits of the scientific component, the total duration of study is 4 years.
Prerequisites	Admission requirements are determined by the "Rules for Admission to the State Biotechnological University". Possession of a master's degree or specialist level (including in another specialty).
Language(s) of instruction	Ukrainian
Duration of the educational program	5 years, until 01.07.2027.
Internet address of permanent placement of the educational program	http://btu.kharkov.ua/
2- The purpose of the educational and scientific program	
Training of highly qualified scientists and scientific and pedagogical personnel in the field of knowledge of management and administration in the specialty of management by forming and developing in applicants the competencies necessary for them to master the basic knowledge, skills and abilities to conduct research on the management of enterprises, organizations and associations, to ensure the receipt of new scientific results, as well as the preparation and defense of dissertations.	
3. -Objectives of the educational and scientific program	
• mastering modern methodology of scientific research; • formation of the applicant's ability to solve complex problems in the field of professional innovation; • participation in systematic scientific research, development and implementation of innovative development programs at the micro and macro levels; • high priority in employment in higher education institutions, civil service and large	

companies;

- publication of research results in rated scientific professional publications;
- accumulation of social capital as a result of partnership with leading specialists and scientists from Ukraine and other countries.

4- Characteristics of the educational and scientific program	
Description of the subject area	**Objects of study:** management of organizations and their divisions. **Learning objectives:** training specialists capable of producing new ideas, solving complex problems in the field of management and administration, which involves a deep rethinking of existing and creation of new holistic knowledge and/or professional practice, applying the latest methodologies of scientific and pedagogical activity, conducting their own scientific research, the results of which have scientific novelty, theoretical and practical significance. **Theoretical content of the subject area:** - paradigms, laws, patterns, principles, historical prerequisites for the development of management; - concepts of systemic, situational, adaptive, anticipatory, anti-crisis, innovative, project management, etc.; - functions, methods, technologies and management decisions in management / **Methods and techniques:** - research methods and techniques (computational and analytical, economic and statistical, economic and mathematical, expert evaluation, factual, sociological, psychological, documentary, balance); - methods of implementing management functions (marketing research methods; economic diagnostics methods; forecasting and planning methods; methods of designing organizational management structures; motivation methods; control methods; methods of creating and developing organizational culture, methods of assessing social, organizational and economic efficiency in management, etc.). - management methods (administrative, economic, socio-psychological, technological); - technologies for substantiating management decisions (economic analysis, DSS, modern artificial intelligence tools in the field of management. **Tools and equipment:** information systems and software products used in management.
Orientation of the educational program	The educational and scientific program is of a research and applied nature .
The main focus of the program	**General focus:** Development of conceptual, theoretical and methodological foundations for managing the development and functioning of socio-economic systems at the micro and macro levels. Development of theoretical and practical principles for building rational organizational and economic mechanisms for managing and functioning of socio-economic systems. Development and application of tools for integrating progressive management decisions, methods and techniques of influencing management objects into the management systems of enterprises and organizations. Development of methodology and methods for developing and improving enterprise management systems, determining their elemental and component composition.

	Development of conceptual, theoretical and methodological foundations for the application of management measures aimed at increasing the efficiency and competitiveness of enterprises and their products, and stabilizing economic development. **Special focus:** Research into patterns and development of scientific principles, methods and approaches regarding: - substantiation of the conceptual principles of building and functioning of mechanisms for increasing the economic efficiency of agricultural producers of various scales, forms and industry areas; - management of the potential of agricultural enterprises; - management of integration processes in agro-industrial production; - integration of diagnostic, monitoring and controlling systems into enterprise management - strategic, tactical, operational planning of activities, changes and development of enterprises, organizations and institutional formations.
Program features	***Educational component of the program*** **.** The program is implemented in small groups of researchers by specialization - enterprise management, national economy management. The program provides for **45 ECTS credits for compulsory subjects,** 15 ECTS credits for elective subjects. Four credits are taken up by teaching practice. ***Scientific component of the program*** **.** The scientific part of the educational and scientific program involves the implementation of the postgraduate student's own scientific research under the guidance of one or two scientific supervisors with the appropriate preparation of the results obtained in the form of a dissertation. The volume of this component is drawn up separately in the form of an individual plan of the postgraduate student's scientific work, is an integral part of the curriculum and amounts to 180 ECTS credits. A feature of the scientific part of the educational and scientific program for the preparation of Doctors of Philosophy in the specialty 073 Management is that graduate students will be able to carry out certain parts of their own scientific research during practical classes in professional training disciplines.
Academic rights of graduates	Obtaining a PhD degree and additional qualifications in the adult education system.
5 – Graduates' suitability for employment and further education	
Graduate employment	Research and teaching activities in the field of management and administration. Administrative and managerial activities. Teaching and research activities in higher education institutions and scientific institutions Positions according to the classification of professions of Ukraine. Assistant (2310.2), Associate Professor (2310.1), Professor (2310.1), Director (Manager) of a Small Industrial Enterprise (Firm) (1312), Director (Head) of an Organization (Research, Design, Project) (1210.1), Director (Head) of a Vocational Educational Institution (Vocational Technical School, Vocational School, etc.) (1210.1), Director (Head, Other Manager) of an Enterprise (1210.1), Director (Rector, Head) of a Higher Educational Institution (Technical School, College, Institute, Academy, University, etc.) (1210.1), Director of Advanced Training Courses (1210.1), Director of a Research Institute (1210.1), Director of an Advanced Training Center (1229.4), Head

	(Head) of a Department (Research, Design, Project, etc.) (1237.2), head of department in college (1229.4), head of laboratory (research, production preparation) (1237.2), junior research associate (2213.1), research associate (management) (2145.1). Place of employment: In research institutions, higher education institutions, other institutions and organizations that conduct research and/or train specialists in the field of management.
6 – Teaching and assessment	
Teaching and learning	Student-centered learning, self-study, problem-based learning, learning through *problem-based lectures, seminar classes, individual and independent work* . The approach to teaching and learning involves: - implementation of active learning methods that provide a personally-oriented approach and development of thinking among postgraduate students (applicants); - close cooperation between postgraduate students (applicants) and their academic supervisors; - support and advice to postgraduate students (applicants) from the scientific, pedagogical and research staff of the university and industry research institutes, including providing access to up-to-date information; - involving recognized practitioners in advising postgraduate students (applicants); - information support regarding the participation of postgraduate students (applicants) in competitions for scientific scholarships, prizes, grants (including international ones); - providing opportunities for postgraduate students (applicants) to participate in the preparation of scientific projects for competitions of the Ministry of Education and Science of Ukraine and other countries; direct participation in the implementation of budgetary and initiative research works
Evaluation	Educational part of the program. The system of assessing knowledge in the disciplines of the educational and scientific program consists of current and final control. Current knowledge control of postgraduate students is carried out orally (survey based on the results of the processed material). The final knowledge test in the form of an exam/test is conducted in written form, followed by an oral interview. Within the disciplines that provide professional training, positive grades in current and final control may be issued automatically if the postgraduate student has prepared and published scientific articles in collections that are included in professional publications and/or publications that are included in international scientific metric databases. The number of articles and their topics are agreed with the scientific supervisor. Scientific part of the program. The assessment of the scientific activity of postgraduate students (applicants) is carried out on the basis of quantitative and qualitative indicators that characterize the preparation of scientific publications, participation in conferences, preparation of individual parts of the dissertation in accordance with the approved individual plan of scientific work of the postgraduate student (applicant). The reports of postgraduate students (applicants), based on the results of the implementation of the individual plan, are approved

	annually at a meeting of the departments and the academic council of the institute (faculty) with a recommendation to continue (or terminate) postgraduate studies. Educational part of the program. Final control of the success of the postgraduate student's (graduate) studies is carried out in the form of: - exam - based on the results of studying such mandatory subjects of the educational program as philosophy and a foreign language in a professional direction, as well as a comprehensive professional exam based on the results of studying professional training disciplines; - credit – based on the results of studying all other disciplines provided for in the curriculum. Scientific part of the program. The final result of the postgraduate student's (obtainer's) training is a properly prepared dissertation manuscript based on the results of scientific research, its public defense and awarding him the scientific degree of Doctor of Philosophy in the specialty 073 - Management
7 – Software competencies	
Integral competencies	The ability to produce new ideas, solve complex problems in the field of management and administration, which involves a deep rethinking of existing and the creation of new holistic knowledge and/or professional practice, apply the latest methodologies of scientific and pedagogical activity, conduct own scientific research, the results of which have scientific novelty, theoretical and practical significance.
General competencies	GC 1 Mastering general scientific competencies aimed at forming a systematic scientific worldview, identifying previously unsolved tasks (problems) or their parts, formulating scientific hypotheses and conducting scientific research with the generation of new scientific, theoretical and practically oriented ideas and conducting original scientific research. GC 2 Ability to abstract thinking, analysis and synthesis, philosophical interpretation through materialistic perception and comprehension of new knowledge in a field or at the border of fields of knowledge GC 3. Ability to communicate scientifically, present research results to the broad scientific community and professional community in the state and foreign languages in the form of speeches, presentations, scientific publications; implement research and innovation activities in an international environment. GC 4. Ability to use a foreign language to understand foreign-language scientific and professional texts in the field of the chosen specialty and the boundaries of specialties and the ability to work with modern bibliographic and abstract databases to present scientific results in written form. GC 5. Ability for continuous self-development and self-improvement. GC 6. The ability to be critical and self-critical. Critically perceive and analyze other people's thoughts and ideas, look for their own ways to solve problems, review scientific publications, and critically analyze their own materials. GC 7. Ability to make informed decisions and skills in developing and implementing scientific projects and programs, assessing their effectiveness, and implementing them. GC 8. Ability to engage in pedagogical activities regarding the organization and implementation of the educational process, teaching, upbringing, development and professional training of students in

	accordance with educational programs and current legislative norms. GC 9. Understanding the importance and principles of observing ethical norms and copyright when organizing, conducting scientific research, and presenting scientific results. GC 10. Ability to work with various sources of information: search, processing, analysis and generalization of information GC 11. The ability to assess the social significance of the results of one's activities, to be a responsible citizen, and to be aware of equal opportunities.
Special (professional) competencies (SC)	SK 1. Ability to retrospectively analyze scientific achievements in the field of research into the problems of management of socio-economic systems, evaluate and synthesize new and complex ideas on management issues at a high professional level, critically analyze the main concepts that create new knowledge, using progressive methods of scientific research. SK 2. Ability to use the latest information technologies and tools, progressive software products, and the capabilities of the global Internet in the process of producing new knowledge, obtaining scientific and practical results in the field of management and in teaching practice SK 3. Ability to plan and manage the process of conducting a thorough scientific dissertation research while adhering to the ethics of scientific research and academic integrity. SK 4. The ability to reasonably choose and use methods and tools of scientific research to conduct independent scientific research in the field of management, to conduct a critical analysis of various information sources in the field of management, governance and administration, and economics. SK 5. Ability to identify, formulate and solve scientific tasks and problems in the field of management and administration, development management, substantiation of the architecture of management mechanisms and the functioning of socio-economic systems. SK 6. Ability to create new knowledge through original research, the quality of which can be recognized at the national and international levels, using the academic Ukrainian language in professional activities. SK 7. Ability to publicly present the results of scientific research of a fundamental or applied nature on management problems; communicate in a dialogic mode with a broad scientific community in the field of scientific and/or professional activity in order to discuss controversial issues and research results, including in scientific circles at the international level in English, orally and in writing. SK 8. Ability to be entrepreneurial and take initiative in developing and implementing innovative projects in the field of management. SK 9. Ability for scientific and pedagogical activity in the field of management and administration.
8 – Learning outcomes according to the program	
RN 01. Knowledge of a foreign language. Ability and skills to communicate in foreign-language scientific and professional environments, ability to work together with researchers from other countries, knowledge and understanding of speech clichés for monological and dialogical communication . Ability and skills to use it to present scientific results in oral and written forms, understanding of foreign-language scientific and professional texts. **RN 02** Knowledge and understanding of the content and functions of science as a social institution;	

general patterns of the development of science, the structure and levels of scientific knowledge; the dynamics of scientific and technological development in a broad socio-cultural context; the specifics of the object and subject of social and humanitarian knowledge; philosophical and methodological programs and principles; "human-dimensional" aspects of science as a social and cognitive phenomenon.

PH 03 Knowledge and understanding of the theory and methodology of systems analysis, knowledge and understanding of the stages of implementing a systems approach when studying processes and phenomena in socio-economic systems,

RN 04 Knowledge of the principles of organizing scientific work. Ability to adhere to professional ethics, as well as the rules of academic integrity in scientific research and scientific and pedagogical activities.

PH 05 Knowledge of basic theoretical concepts in the field of information technology, mathematical modeling methods. Knowledge of methods and algorithms for processing large data sets using information technology. Skills in using modern information and communication technologies, applying information technology to process and analyze the results of experimental research and their presentation.

RN 06. Knowledge of scientific research methods, skills to use them at the level of a doctor of philosophy. Skills to work with various sources, to search, process, analyze and systematize the information received. Understanding of scientific articles in the field of the chosen specialty. Skills and abilities to work with modern bibliographic and abstract databases, as well as scientometric platforms such as Web of Science, Scopus, etc. Skills to track the latest achievements and find scientific sources that are relevant to the field of scientific interests of the postgraduate student (obtainer). identify contradictions and previously unresolved problems or parts of them, formulate working hypotheses.

RN 07 Skills to organize creative activities and the process of conducting scientific research. Skills to evaluate and ensure the quality of the work performed. Ability to create new knowledge through original research, the quality of which can be recognized at the national and international levels. Skills to organize self-checking of the compliance of dissertation research materials with the established requirements.

RN 08. The ability to formulate conceptual approaches and a holistic vision of the modern management system. Skills to critically perceive and analyze other people's thoughts and ideas, to look for their own ways to solve the problem, to carry out a critical analysis of their own materials. The ability to generate their own ideas and make informed decisions in the field of management. The ability to develop and implement scientific projects and programs in the field of management and administration in socio-economic systems of various scales and levels.

RN 09. Knowledge of the structure of higher education in Ukraine, the ability to use the legislative and regulatory framework of higher education. Knowledge of the specifics of the scientific and pedagogical activities of a higher school teacher. The ability to use modern means and technologies of organization to implement the educational process. Knowledge and ability to use various aspects of educational work with students and innovative teaching methods. Skills to organize creative activities, work on scientific articles and reports. Skills and abilities to perform appropriate, original and suitable for publication research in the field of management and administration.

PH 10. Ability to conduct a retrospective analysis of scientific achievements in the field of management research, identify and solve scientific problems in the field of management. Knowledge of the genesis of the development of scientific thought in the field of management and administration, skills in implementing the main functions and methods of management; methods for designing an organizational structure; skills in applying basic management technologies; conduct experimental research on management objects. Ability to use statistical methods of analysis to establish structural and dynamic trends and patterns in the field of management and administration. Skills in conducting a critical analysis of various information sources, specific educational, scientific and professional texts in the field of management and administration, social and behavioral sciences.

PH 11. Knowledge and understanding of existing methods of analyzing trends and patterns of development of macro- and microeconomic processes; advantages of using economic and

mathematical modeling for making informed management decisions; rules for forming the primary information space of scientific research. Ability to forecast economic processes represented by dynamic series; approximations of interconnected economic processes; model sets of economic objects **RN 12.** Ability to prepare and publish scientific articles (the number of which is provided for by relevant regulatory legal acts), monographs, scientific and methodological recommendations, abstracts of reports and other forms of presentations of the results of scientific research in the state and foreign languages. Knowledge of the content and procedure for calculating the main quantitative scientometric indicators of the effectiveness of scientific activity Ability to perform budget, economic contract and initiative research works (topics) and write proposals for financing scientific research, registration of intellectual property rights. Ability to make presentations at conferences, seminars, forums. Ability to implement research results in production and the educational process. Ability to prepare and publicly defend a dissertation at a meeting of a specialized academic council.	
9 – Resource provision for program implementation	
Human resources	The implementation of the program is ensured by highly qualified personnel with academic degrees and academic titles, who have extensive experience in educational and methodological and research work and meet the qualifications in accordance with the specialty in accordance with the personnel requirements for ensuring the implementation of educational activities for the appropriate level of higher education, approved by the Resolution of the Cabinet of Ministers of Ukraine dated December 30, 2015 No. 1187 "On Approval of the Licensing Conditions for the Implementation of Educational Activities." Guarantor of the educational and scientific program: Dr., Economics, Prof. Girzheva O.M. – Professor of the Department of Management, Business and Administration
Logistics and technical support	The program has the necessary support to implement the curricula, in accordance with the technological requirements for the material and technical support of the corresponding level of higher education, approved by the Resolution of the Cabinet of Ministers of Ukraine dated December 30, 2015 No. 1187 "On Approval of the Licensing Conditions for Educational Activities"
Information and educational and methodological support	In accordance with the technological requirements for educational, methodological and information support of educational activities for the corresponding level of higher education, approved by the Resolution of the Cabinet of Ministers of Ukraine dated December 30, 2015 No. 1187 "On Approval of the Licensing Conditions for the Conduct of Educational Activities": **Information and educational and methodological support** – official website of DBTU http://btu.kharkov.ua/ ; – unlimited access to the Internet; – DBTU scientific library, reading rooms; – Moodle virtual learning environment; – access to databases of periodical scientific publications in English; – training and work plans; – schedules of the educational process; – educational and methodological complexes of disciplines; – educational and work programs of disciplines; – didactic materials for independent and individual work of applicants; – internship programs; – methodological guidelines for completing coursework and diploma theses;

	– criteria for assessing the level of training
9 – Academic mobility	
National credit mobility	On general grounds within Ukraine
International credit mobility	Based on bilateral agreements between DBTU and foreign higher education institutions.
Education of foreign higher education applicants	Education on a general basis, subject to successful completion of entrance preparation and proficiency in the Ukrainian language at a sufficient level not lower than B1.

1. LIST OF COMPONENTS OF THE EDUCATIONAL AND SCIENTIFIC PROGRAM "MANAGEMENT"

Code n/a	Components of the educational program (courses, course projects (papers), internships, qualification work)	Number of credits	Form control summary
1	2	3	4
EDUCATIONAL COMPOSITION			
Mandatory components of the SNP			
Disciplines for mastering general scientific competencies			
OKZ 1	Philosophy of science	4	Exam
OKZ 2	Academic integrity and ethics of scientific research	3	Exam
Together		***7***	
Disciplines for acquiring universal skills of a researcher			
OKU 1	Ukrainian language of scientific communication	3	Differential credit
OKU 2	Higher education pedagogy	3	Exam
OKU 3	Methodology of scientific research in management and administration	3	Differential credit
OKU 4	Intellectual property and the effectiveness of scientific projects	3	Exam
Together		***12***	
Disciplines for the formation of language competencies			
OKM 1	Foreign language for professional purposes	8	Differential credit, Exam
Together		***8***	
Formation of professional competencies			
OKP 1	Management Theory (advanced course)	3	Exam
OKP 2	Models and methods in information technology for management and decision-making	4	Exam
OKP 3	Concepts and models of modern management	3	Exam
OKP 4	Managing change in socio-economic systems	4	Exam
Together		***14***	
Practice			
OKP 5	Teaching practice	4	Differential credit
Volume of mandatory components, credits (%)		**45 (75%)**	
Selected components of the SNP*			
VK 1	Elective academic discipline	3.0	Differential credit
VK 2	Elective academic discipline	3.0	Differential credit
VK 3	Elective academic discipline	3.0	Differential credit
VK 4	Elective academic discipline	3.0	Differential credit
VK 5	Elective academic discipline	3.0	Differential credit
Total volume of elective components, credits (%)		**15 (25%)**	
TOTAL VOLUME OF EDUCATIONAL COMPONENT OF NPE		**60**	
SCIENTIFIC COMPONENT			
Preparation of a qualification paper (thesis)		**180**	
TOTAL VOLUME OF SCIENTIFIC COMPONENT OF ONP		**180**	
TOTAL VOLUME OF ONP		**240**	

* In the curricula of level III specialist training, the volume of disciplines chosen by the applicant corresponds to 25-50% of ECTS credits from the total volume of the general education program and is studied starting from the second semester of study.

The list of academic disciplines is presented in the catalog of elective disciplines by the corresponding level on the official website of the university. Applicants have the right to freely choose an academic discipline within the proposed list.

The list of elective subjects is adjusted annually by the graduating departments in accordance with the topics of the candidates' dissertations.

The applicant has the right, in agreement with the academic supervisor, to choose from the curricula of other educational programs and levels of higher education.

Below is a structural and logical diagram of the educational and scientific program "Management", a matrix of correspondence of program competencies to educational components, as well as a matrix of ensuring program learning outcomes by educational components of the SPE.

2.1. STRUCTURAL AND LOGICAL DIAGRAM OF THE EDUCATIONAL AND SCIENTIFIC PROGRAM "MANAGEMENT"

1 course		2nd year		3rd year		4th year	
1	2	3	4	5	6	7	8
OKZ 1 OKZ 2	Emergency	Emergency	Emergency	Emergency	Emergency	Emergency	Emergency
OKU 1	OKU 2 OKU3	Emergency	OKU 4	Emergency	Emergency	Emergency	Emergency
OKM 1		Emergency	Emergency	Emergency	Emergency	Emergency	Emergency
Emergency	OKP 1	OKP 2 OKP 3	OKP 4	OKP 5	Emergency	Emergency	Emergency
Emergency	Emergency	VK 1 VK2	VK 3 VK 4 VK 5	Emergency	Emergency	Emergency	Emergency

Виконання складових індивідуального плану аспіранта з підготовки дисертаційної роботи на здобуття ступеня доктора філософії

OKZ - *Disciplines for mastering general scientific competencies*

OKU - *Disciplines for acquiring universal skills of a researcher*

OKM - *Disciplines for the formation of language competencies*

OKP - *Formation of professional competencies*

NS - *Scientific component (Preparation of qualification work (thesis)*

2. FORM OF CERTIFICATION OF HIGHER EDUCATION GRADUATES

Certification of graduates of the educational and scientific program "Management" of specialty 073 "Management" is carried out on the basis of a public defense of scientific achievements in the form of a dissertation in the specialty and is completed by issuing a document of the established sample on awarding him the degree of Doctor of Philosophy with the assignment of the qualification: Doctor of Philosophy in the specialty "Management". Certification is carried out openly and publicly.

Forms of certification of higher education applicants	Certification of candidates for the degree of Doctor of Philosophy is carried out in the form of a public defense of the dissertation.
Dissertation requirements for the degree of Doctor of Philosophy)	A dissertation for the degree of Doctor of Philosophy is an independent, detailed study that proposes a solution to a complex problem in the field of management or at its interface with other specialties, the results of which constitute an original contribution to management theory and are published in scientific publications in peer-reviewed scientific journals. The dissertation should not contain academic plagiarism, falsification, or fabrication. The dissertation must be posted on the website of the higher education institution (scientific institution).

3. REQUIREMENTS FOR THE EXISTENCE OF AN INTERNAL QUALITY ASSURANCE SYSTEM IN HIGHER EDUCATION

The State Biotechnological University operates a system for ensuring the quality of educational activities and the quality of higher education (internal quality assurance system), which provides for the implementation of the following procedures and measures:

1. Defining principles and procedures for ensuring the quality of higher education;
2. Monitoring and periodic review of educational programs;
3. Annual evaluation of higher education applicants, scientific and pedagogical, pedagogical and scientific workers and regular publication of evaluation results on the official website of the university;
4. Ensuring advanced training of scientific and pedagogical, pedagogical and scientific workers;
5. Ensuring the availability of necessary resources for organizing the educational process, including independent work of students, for each educational program;
6. Ensuring the availability of information systems for effective management of the educational process;
7. Ensuring the publicity of information about educational programs, higher education degrees and qualifications;
8. Ensuring an effective system for preventing and detecting academic plagiarism in scientific works of employees of higher educational institutions and higher education students;

The system of ensuring the quality of educational activities and the quality of higher education by a higher education institution (internal quality assurance system) is assessed by the National Agency for Quality Assurance in Higher Education or by independent institutions for assessment and quality assurance of higher education accredited by it for its compliance with the requirements for the system of quality assurance of higher education approved by the National Agency for Quality Assurance in Higher Education, and international standards and recommendations for quality assurance of higher education.

4. CORRESPONDENCE MATRICES

Table 1

Matrix of correspondence of defined SNP competencies to NQF descriptors

Classification of competencies by NRK	Knowledge	Skills	Communication	Responsibility and autonomy
List of competencies	**ZN1** Conceptual and methodological knowledge in a field or at the border of fields of knowledge or professional activity	**UM1** specialized skills/abilities and methods necessary to solve significant problems in the field of professional activity, science and/or innovation, to expand and reassess existing knowledge and professional practice	**K1** free communication on issues related to the field of scientific and expert knowledge with colleagues, the wider scientific community, and society as a whole	**BA 1** demonstration of significant authority, innovation, a high degree of independence, academic and professional integrity, consistent commitment to the development of new ideas or processes in advanced contexts of professional and scientific activity .
		UM2 initiate, plan, implement, and adjust a consistent process of sound scientific research with due academic integrity	**K2** use of academic Ukrainian and foreign languages in professional activities and research	**VA 2** ability for continuous self-development and self-improvement
		UM3 critical analysis, evaluation and synthesis of new and complex ideas		
General competencies				
ZK01	**ZN 1**	**UM 1**		
ZK02	**ZN 1**	**UM 1**		
ZK03		**UM 1**	**K1** **K 2**	**VA 1**
ZK04		**UM 1**	**K 2**	**VA 1**
ZK05				**VA 2**
ZK06		**UM3**		**VA 1**
ZK07	**ZN 1**	**UM 1** **UM2**		**VA 1**
ZK08	**ZN 1**	**UM 1**	**K 1**	**VA 1** **VA 2**
ZK09		**UM2**		**VA 1**
ZK10		**UM2**		**VA 1**

ZK11				**VA 1**
Special (professional) competencies				
SK01	**ZN 1**	**UM 1** **UM 3**		**VA 1**
SK02	**ZN 1**	**UM2**		**VA 1**
SK03		**UM2**		**VA 1**
SK04	**ZN 1**	**UM 1** **UM2** **UM3**		**VA 1**
SK05	**ZN 1**	**UM 2**		**VA 1**
SK06		**UM 1**	**K 2**	**VA 1**
SK07			**K 1** **K 2**	**VA 1**
SK08		**UM 1** **UM2**		**VA 1**
SK09		**UM 1**	**K 1**	**VA 2**

Table 2

Matrix of correspondence between the learning outcomes and competencies defined by the SNP

	Program learning outcomes	General competence											Special (professional) competencies								
		1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9
RN 01	Knowledge of a foreign language. Ability and skills to communicate in foreign-language scientific and professional environments, ability to work together with researchers from other countries, knowledge and understanding of speech clichés for monological and dialogical communication . Ability and skills to use it to present scientific results in oral and written forms, understanding of foreign-language scientific and professional texts.			+	+	+					+								+		
RN 02	Knowledge and understanding of the content and functions of science as a social institution; general patterns of the development of science, the structure and levels of scientific knowledge; the dynamics of scientific and technological development in a broad socio-cultural context; the specifics of the object and subject of social and humanitarian knowledge; philosophical and methodological programs and principles; "human-dimensional" aspects of science as a social and cognitive phenomenon.	+	+				+						+								
RN 03	Knowledge and understanding of the theory and methodology of systems analysis, knowledge and understanding of the stages of implementing a systems approach in the study of processes and phenomena in socio-economic systems. Ability to use statistical analysis methods to establish structural and dynamic trends and patterns in the field of management and administration. Skills to conduct critical analysis of various information sources, specific educational, scientific and professional texts in the field of management and administration, social and behavioral sciences.	+			+		+				+		+	+	+	+	+				
RN 04	Knowledge of the principles of organizing scientific work. Ability to adhere to professional ethics, as well as the rules of academic integrity in scientific research and scientific and pedagogical activities.	+					+			+		+			+						+
RN 05	Skills to use modern information and communication technologies, to apply information technologies to process and analyze the results of experimental research and their			+		+		+			+			+		+					

	presentation. Understanding of existing methods of analyzing trends and patterns of development of macro- and microeconomic processes; advantages of using economic and mathematical modeling for making informed management decisions; rules for forming the primary information space of scientific research.																				
RN 06	Knowledge of scientific research methods, skills to use them at the level of a Ph.D. Skills to work with various sources, to search, process, analyze and systematize the information received. Skills and abilities to work with modern bibliographic and abstract databases, as well as scientometric platforms such as Web of Science, Scopus, etc. Skills to track the latest achievements and find scientific sources that are relevant to the field of scientific interests of the postgraduate student (obtainer). identify contradictions and previously unresolved problems or parts of them, formulate working hypotheses.	+			+	+					+		+			+	+				
RN 07	Skills to organize creative activities and the process of conducting scientific research. Skills to evaluate and ensure the quality of the work performed. Ability to create new knowledge through original research, the quality of which can be recognized at the national and international levels. Skills to organize self-checking of the compliance of the dissertation research materials with the established requirements.					+	+			+		+			+			+	+	+	
RN 08	The ability to formulate conceptual approaches and a holistic vision of the modern management system. The skills to critically perceive and analyze other people's thoughts and ideas, to look for their own ways to solve problems, to carry out critical analysis of their own materials. The ability to generate their own ideas and make informed decisions in the field of management. The skills and abilities to carry out appropriate, original and publishable research in the field of management and administration.	+				+	+	+			+					+	+				
RN 09	Knowledge of the structure of higher education in Ukraine, skills use legislative and regulatory support for higher education. Knowledge of the specifics of the scientific and pedagogical activities of a higher school teacher. Ability to use modern means and technologies of organization for the implementation of the educational process. Knowledge and ability to use					+			+			+									+	

	various aspects of educational work with students and innovative teaching methods.																					
PH 10	The ability to carry out a retrospective analysis of scientific achievements in the field of management research, to identify and solve scientific problems in the field of management. Knowledge of the genesis of the development of scientific thought in the field of management and administration, skills in implementing basic functions and management methods; methods for designing an organizational structure; skills in applying basic management technologies.		+			+					+											
RN 011	Ability to present the results of scientific research in the form of preparation and publication of scientific articles, monographs, scientific and methodological recommendations, abstracts of reports and other forms of presentations of the results of scientific research in the state and foreign languages and the ability to make presentations at conferences, seminars, forums. Knowledge of the content and procedure for calculating the main quantitative scientometric indicators of the effectiveness of scientific activity. Ability to prepare and publicly defend a dissertation at a meeting of a specialized academic council.			+	+		+			+		+								+		
RN 012	Ability to develop and implement scientific projects and programs in the field of management and administration in socio-economic systems of various scales and levels. Ability to perform budget, economic contract and initiative research works (topics) and write proposals for financing scientific research, registration of intellectual property rights. Ability to implement research results in production and the educational process.			+				+	+	+	+										+	+

Table 3

Matrix of correspondence of program competencies to mandatory components of the educational program

Code n/a	Educational program components	IR	ZK 1	ZK 2	ZK 3	ZK 4	ZK 5	ZK 6	ZK 7	ZK 8	ZK 9	ZK 10	ZK 11	SC 1	SC 2	SC 3	SC 4	SC 5	SK 6	SK 7	SK 8	SK 9
OKZ 1	Philosophy of science	+	+	+										+								
OKZ 2	Academic integrity and ethics of scientific research	+					+				+			+		+						
OKU 1	Ukrainian language of scientific communication	+			+														+	+		
OKU 2	Higher education pedagogy	+								+			+		+							+
OKU 3	Methodology of scientific research in management and administration	+	+			+	+	+			+	+		+		+	+		+	+		
OKU 4	Intellectual property and the effectiveness of scientific projects	+	+						+				+							+	+	
OKM 1	Foreign language by professional direction m	+			+	+														+		
OKP 1	Management Theory (advanced course)	+	+	+								+		+			+	+				
OKP 2	Models and methods in information technology for management and decision-making	+										+		+	+		+					
OKP 3	Concepts and models of modern management	+					+	+						+			+	+		+		
OKP 4	Managing change in socio-economic systems	+	+					+	+			+		+	+		+	+				
OKP 5	Teaching practice	+					+			+					+					+		+

Table 4

Matrix of ensuring learning outcomes according to the program (PL) by mandatory components of the educational program

Code n/a	Components of the educational program (courses, course projects (papers), internships, qualification work)	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12
OKZ 1	Philosophy of science		+										
OKZ 2	Academic integrity and ethics of scientific research				+			+				+	
OKU 1	Ukrainian language of scientific communication											+	
OKU 2	Higher education pedagogy									+			
OKU 3	Methodology of scientific research in management and administration			+	+		+	+					
OKU 4	Intellectual property and the effectiveness of scientific projects											+	+
OKM 1	Foreign language by professional direction m	+											
OKP 1	Management Theory (advanced course)								+		+		
OKP 2	Models and methods in information technology for management and decision-making					+	+						
OKP 3	Concepts and models of modern management								+				
OKP 4	Managing change in socio-economic systems			+		+	+		+		+	+	+
OKP 5	Teaching practice									+			