

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
LVIV POLYTECHNIC NATIONAL UNIVERSITY**

«APPROVE»
Rector of Lviv Polytechnic
National University

_____ / Bobalo Yu./
« ____ » _____ 2022 p.

**EDUCATIONAL AND SCIENTIFIC PROGRAM
MANAGEMENT**

Third (educational and scientific) level of higher education

Speciality 073 «Management»

Field of knowledge 07 «Management and administration»

Qualification: Doctor of Philosophy in the speciality «Management»

Reviewed and approved by the
Academic Council of the University
(Protocol No _____
date « ____ » _____ 2022)

Lviv 2022

Developed by the working group of the speciality 073 «Management» in the composition:

Head of the working group (Guarantor):	
Shuliar R.	Professor of the Department of Management and International Business
Members:	
Kuzmin O.	Director of the Institute of Economics and Management
Halkiv L.	Professor of the Department of Management of Organizations
Honchar M.	Professor of the Department of Management and International Business
Dvulit Z.	Professor of the Department of Foreign Trade and Customs
Zhezhukha V.	Associate Professor of the Department of Foreign Trade and Customs
Ilchuk P.	Head of the Department of Management Technologies
Karyi O.	Head of the Department of Management of Organizations
Novakivskiy I.	Professor of the Department of Management of Organizations
Sytnyk Y.	Head of the Department of Human Resource Management and Administration
Chornopyska N.	Associate Professor of the Department of Marketing and Logistics
Shpak N.	Professor of the Department of Management and International Business
Zlotnik M.	Postgraduate student in the 3th year of study, speciality 073 «Management»
Karpiak A.	Postgraduate student in the 4th year of study, speciality 073 «Management»
Sheremeta B.	Postgraduate student in the 4th year of study, speciality 073 «Management»
Matolych B.	Director of the Institute of Cross-Border Cooperation and European Integration
Korud V.	Vice-president of the Lviv Chamber of Commerce and Industry
Todoshchuk A.	President of the Association of Professional Customs Brokers
Budynskiy R.	Head of Rostmostbud LLC, a graduate of the educational and scientific program, PhD in management
Malibroda S.	Member of the council of young scientists of Lviv Polytechnic, Head of the Scientific Society of students, postgraduates, doctoral students and young scientists of the Institute of Economics and Management, Postgraduate student of the PhD program «International Economic Relations»
Malykha V.	Head of the collegium and professional bureau of students of the Institute of Economics and Management

Head of the working group (Guarantor):

R. Shuliar

Approved and put into force by the order of the Rector of Lviv Polytechnic National University date «___» _____ 20___. No _____.

This educational and scientific program may not be fully or partially reproduced, replicated and distributed without the permission of Lviv Polytechnic National University.

LETTER OF AGREEMENT

The educational and scientific program

Level of higher education	Third (educational and scientific)
Field of knowledge	07 Management and administration
Specialty	073 Management
Qualification	Doctor of Philosophy

APPROVED

Scientific and Methodological
Commission of speciality
073 Management

Protocol No _____

date «__» _____ 2022

Head of the SMC of the speciality
073 Management

«__» _____ 2022

Director of the Institute of Economics
and Management

_____ O. Kuzmin

«__» _____ 2022

AGREED

Head of the educational and
methodological department

_____ Sviridov V.

«__» _____ 2022

Vice-rector for scientific work

_____ Demydov I.

«__» _____ 2022

Vice-rector for scientific and
pedagogical work

_____ Davydchak O.

«__» _____ 2022

RECOMMENDED

Scientific and methodological council
of Lviv Polytechnic

Protocol No _____

date «__» _____ 2022

Head of the SMC

_____ A. Zahorodnii

I. EDUCATIONAL COMPONENT OF THE EDUCATIONAL AND SCIENTIFIC PROGRAM

1. Doctor of Philosophy program profile speciality 073 «Management»

1 – General information	
1	2
Full name of the institution of higher education and structural unit	Національний університет «Львівська політехніка» Lviv Polytechnic National University
Повна назва кваліфікації мовою оригіналу/ Full title of the qualification in the original language	Доктор філософії за спеціальністю «Менеджмент» Doctor of Philosophy by Specialty of Management
The official name of the educational and scientific program	Менеджмент Management
Type of diploma and scope of the educational program	Doctor of Philosophy, single, 43 ECTS credits of the educational component of the educational and scientific program, term of the educational component of the educational and scientific program - 2 years
Cycle / level	NRC of Ukraine - level 8, FQ-EHEA - the third cycle, EQF-LLL - level 8
Prerequisites	Level of higher education "Master". The examination program for persons who have obtained a previous degree of higher education in other specialities provides for verification of the person's acquisition of competencies and learning outcomes determined by the standard of higher education in the speciality 073 Management for the second (master's) level of higher education
Language (s) teaching	Ukrainian/English
Basic concepts and their definitions	The educational and scientific program uses the basic concepts and their definitions in accordance with the Law of Ukraine "On Higher Education" of 01.07.2014 № 1556-VII with changes and additions, the Law of Ukraine "On Education" of 05.09.2017 №2145- VIII with changes and additions, the Law of Ukraine "On scientific and scientific and technical activities" of 26.11.2015 № 848-VIII with changes and additions, the Procedure for training applicants for higher education degree of Doctor of Philosophy and Doctor of Science in higher education institutions (scientific institutions), approved by the Resolution of the Cabinet of Ministers dated 23.03.2016 № 261 with changes and additions, the Procedure for conducting an experiment in awarding the degree of Doctor of Philosophy, approved by the Resolution of the Cabinet of Ministers of Ukraine dated 06.03.2019 №167, Guidelines for developing standards of higher education, approved by the Order of the Ministry of Education and Science of Ukraine dated 01.06.2017 №600 with changes and additions, Regulations on accreditation of educational programs, which are prepared higher education seekers approved by the order of the Ministry of Education and Science of Ukraine dated July 11, 2019 № 977, Standard in the specialty 073 Management for the third (educational and scientific) level, approved by the order of the Ministry of Education and Science of Ukraine dated 12/24/2021 No. 1436.

2 – The purpose of the educational and scientific program	
Purpose	Training of specialists capable of producing new ideas, and solving complex problems in the field of management and administration, which involves a deep rethinking of existing and creating new holistic knowledge and/or professional practice, applying the latest methodologies of the scientific and pedagogical activity, carrying out own scientific research, the results of which have scientific novelty, theoretical and practical significance
3 - Characteristics of the educational and scientific program	
Subject area (field of knowledge, speciality)	Theoretical content of the subject area: - paradigms, laws, regularities, principles, historical prerequisites of management development; - concepts of systemic, situational, adaptive, anticipatory, anti-crisis, innovative, project management, etc.; - functions, methods, technologies and managerial decisions in management Methods, techniques and technologies: - methods and research methods (calculation-analytical, economic-statistical, economic-mathematical, expert evaluation, factual, sociological, psychological, documentary, balance sheet); - methods of implementing management functions (marketing research methods; methods of economic diagnostics; methods of forecasting and planning; methods of designing organizational management structures; methods of motivation; methods of control; methods of creating and developing 7 organizational culture, methods of evaluating social, organizational and economic efficiency in management, etc.); - management methods (administrative, economic, socio-psychological, technological); - technologies for justifying management decisions (economic analysis, SPPR, modern tools of artificial intelligence in the field of management (field of knowledge 07 "Management and administration", specialty 073 "Management"))
Orientation of the educational and scientific program	The educational and scientific program is based on the fundamental postulates of management and the results of modern scientific research in the field of innovative development of management theory and practice. Aimed at the development of the theoretical-methodological and methodological-applied base of management with an emphasis on the latest trends in management, which deepens the professional scientific worldview and provides a basis for research and further professional and scientific activities
Program features	The educational and scientific program covers a wide range of modern innovative vectors of development of the theory and practice of management that forms the actualized theoretical and applied base for carrying out scientific research
4 – Suitability of graduates of the educational and scientific program to employment and further training	
Suitability for employment	Jobs in public and private institutions of higher education, scientific and research institutions in the positions of teachers and researchers, in enterprises and organizations of various activities and forms of ownership in management positions
Further training	Doctor of Science Higher Education Program
5 – Teaching and assessment	
Teaching and learning	Combination of lectures and practical classes, pedagogical workshop, consultation with the supervisor and the scientific and pedagogical community with independent scientific and educational work
Assessment	Exams, tests, current control
6 – Program competencies	
Integral competence (IC)	Ability to produce innovative scientific ideas, master the methodology of scientific and pedagogical activities, solve complex problems in the process of innovation, research and professional activities, and perform original research in the field of management at the international and national levels

General competencies (GC)	<p>GC 01. Ability to identify, pose and solve problems</p> <p>GC 02. Ability to search, process and analyze information from various sources</p> <p>GC 03. Ability to work in an international context.</p> <p>GC 04. The ability to solve complex problems in the field of management based on a systematic scientific worldview and a general cultural outlook in compliance with the principles of professional ethics and academic integrity.</p>
----------------------------------	---

Special (professional) competencies (FC)	<p>FC 01. The ability to perform original research and achieve scientific results that create new knowledge in management and related interdisciplinary areas.</p> <p>FC 02. The ability to orally and in writing present and discuss the results of scientific research and/or innovative developments in Ukrainian and English, to study scientific literature on management and administration and to effectively use new information from various sources.</p> <p>FC 03. The ability to carry out scientific and pedagogical activities in the field of management in institutions of higher education.</p> <p>FC 04. The ability to initiate, develop, implement and manage scientific projects in management and related interdisciplinary areas and/or make proposals for funding scientific research and registration of intellectual property rights.</p> <p>FC 05. The ability to initiate the study of socio-economic phenomena and processes in various spheres of management based on the historical foundations of the development of management theory and practice, ideological teachings of management classics, fundamental postulates and paradigms of management and based on the latest progressive trends in the development of management, modern scientific tools.</p>
---	--

7 – Program learning outcomes

Program learning outcomes (PH)	<p>PH01. Apply modern tools and technologies for searching, processing and analyzing information, particularly statistical methods for analyzing data of a large volume and/or complex structure, specialized databases and information systems.</p> <p>PH02. Freely present and discuss with specialists and non-specialists the results of research, scientific and applied management problems in the national and English languages, competently reflecting the results of research in scientific publications in leading international scientific publications.</p> <p>PH03. Develop and research conceptual, mathematical and computer models of processes and systems, effectively use them to obtain new knowledge and/or create innovative products in management and related interdisciplinary areas.</p> <p>PH04. Develop and implement scientific and applied projects that provide an opportunity to rethink the existing and create new holistic knowledge and/or professional practice in the field of management and administration and to solve significant scientific and technological problems in management in compliance with the norms of academic ethics and to take into account social, ethical, economic, environmental and legal aspects.</p> <p>PH05. Deeply understand the general principles and methods of management sciences, as well as the methodology of scientific research and apply them in one's research in management and teaching practice.</p> <p>PH06. Plan and carry out scientific and applied research in management and related interdisciplinary areas using modern tools, 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 problem under study; make proposals for financing research and/or projects.</p> <p>PH07. To test and implement the results of one's research in management.</p> <p>PH08. Develop and teach special educational disciplines in management in educational institutions.</p>
---------------------------------------	--

	PH09. To use in-depth knowledge and understanding of the classical and modern methodological-methodological base of research of socio-economic phenomena and processes in various management spheres.
--	---

8 – Resource support for the implementation of the educational program	
Specific characteristics of academic staff	100% of research and teaching staff involved in teaching a series of disciplines that provide special (professional) competencies of the graduate student have degrees and academic titles, are recognized professionals with experience in research, management or innovation in the speciality
Specific characteristics of material and technical support	Use of modern software: "Enterprise Project Management", "MD Office", "Microsoft Office"
Specific characteristics of information and methodological support	Use of the virtual educational environment of the Lviv Polytechnic National University and the author's developments of scientific and pedagogical workers
9 – Academic mobility	
National credit mobility	Based on bilateral agreements between Lviv Polytechnic National University and Ukrainian universities
International credit mobility	Based on bilateral agreements between Lviv Polytechnic National University and educational institutions of partner countries
Training of international graduate students	Possible

2. Distribution of the content of the educational component of the educational-scientific program by groups of components and cycles of preparation

№ 3/II	Training cycles	The amount of study load of the graduate student (credits /%)		
		Required components of the educational component	Selective components of the educational component	Total for the entire period of study
1.	A cycle of disciplines that form general scientific competencies and universal skills of a researcher	21/49	3/7	24/56
2.	A cycle of disciplines that form professional competencies	10/23	6/14	16/37
3.	A cycle of disciplines of free choice of postgraduate student	-	3/7	3/7
Total for the entire period of study		31/72	12/28	43/100

3. List of components of the educational part of the educational and scientific program

Code n / a	Components of the educational part	Number of credits	Form final control
1	2	3	4
1. Mandatory components of the educational component			
<i>1.1. A cycle of disciplines that form general scientific competencies and universal skills of a researcher</i>			
OK1.1.	Філософія і методологія науки/ Philosophy and methodology of science	3	exam
OK1.2.	Іноземна мова для академічних цілей, частина 1/ Foreign language for academic purposes, part 1	4	credit
OK1.3.	Іноземна мова для академічних цілей, частина 2/ Foreign language for academic purposes, part 2	4	exam
OK1.4.	Професійна педагогіка/ Professional pedagogy	3	exam
OK1.5.	Академічне підприємництво/ Academic entrepreneurship	4	credit
OK1.6.	Педагогічна практика*/ Pedagogical practice*	3	credit
Total per cycle:		21	
<i>1.2. A cycle of disciplines that form professional competencies</i>			
OK2.1.	Процесно-структурований менеджмент/ Process-structured management	4	exam
OK2.2.	Дослідницький семінар у галузі економіки, управління та міжнародних економічних відносин/Research seminar in the field of economics, management and international economic relations	3	credit
OK2.3.	Методи дослідження у менеджменті/ Research methods in management	3	credit
Total per cycle:		10	
2. Selective components of the educational component **			
<i>2.1. A cycle of disciplines that form general scientific competencies and universal skills of a researcher</i>			
ВБ1.1	Ділова іноземна мова/Business Foreign Language	3	credit
ВБ1.2	Психологія творчості та винахідництва/Psychology of creativity and invention	3	credit
ВБ1.3	Управління науковими проектами/Management of scientific projects	3	credit
ВБ1.4	Технологія оформлення грантових заявок та патентних прав/ Technology of registration of grant applications and patent rights	3	credit
ВБ1.5	Риторика/ Rhetoric	3	credit
ВБ1.6	Сучасна інвентика у науково-дослідній діяльності/Modern inventory in research activities	3	credit
ВБ1.7	Відкриті наукові практики/Open scientific practices	3	credit
ВБ1.8	Академічна доброчесність і якість освіти/Academic integrity and quality of education	3	credit
ВБ1.9	Методологія підготовки наукових публікацій/Methodology of preparation of scientific publications	3	credit
ВБ1.10	Якість вищої освіти (формування внутрішніх систем забезпечення якості)/Quality of higher education (formation of internal quality assurance systems)	3	credit
Total per cycle:		3	
<i>2.2. A cycle of disciplines that form professional competencies</i>			
ВБ2.1	Комунікаційний менеджмент/ Communication management	3	exam
ВБ2.2	Інноваційна логістика/ Innovative logistics	3	exam
ВБ2.3	Інструментарій та технології управління витратами підприємств/Tools and technologies for cost management of enterprises	3	exam
ВБ2.4	Антисипативний менеджмент/ Antisipative management	3	exam
ВБ2.5	Сучасні концепції управління людським капіталом/ Modern concepts of human capital management	3	exam
ВБ2.6	Соціогуманістична парадигма менеджменту/ Socio-humanistic paradigm of management	3	exam
ВБ2.7	Ризик-менеджмент та актуарний фінансовий менеджмент/ Risk management and actuarial financial management	3	exam
ВБ2.8	Оцінювання та регулювання соціально-економічної ефективності систем менеджменту/ Evaluation and regulation of socio-economic efficiency of management systems	3	exam

ВБ2.9	Управління транснаціональними корпораціями/ Management of multinational corporations	3	exam
ВБ2.10	Управління венчурними проектами/ Venture project management	3	exam
ВБ2.11	Історичні парадигми та сучасні теорії менеджменту/ Historical paradigms and modern management theories	3	exam
ВБ2.12	Сучасні інструменти маркетингових досліджень/ Modern tools of marketing research	3	exam
ВБ2.13	Аналітичні та чисельні методи досліджень у менеджменті/ Analytical and numerical research methods in management	3	exam
ВБ2.14	Управління діяльністю організаційно-виробничих систем/ Management of organizational and production systems	3	exam
ВБ2.15	Менеджмент кар'єри/Career Management	3	exam
Total per cycle:		6	
3. Disciplines of free choice of graduate student **			
ВБ3.1	Discipline of free choice of graduate student	3	credit / exam
TOTAL		43	

Note: * - pedagogical practice can take place in the second or third year of study;

** - the graduate student has the opportunity to choose subjects from item 2, item 3 (elective and free choice), thus the share of these subjects should make not less than 25% of the total number of ECTS credits.

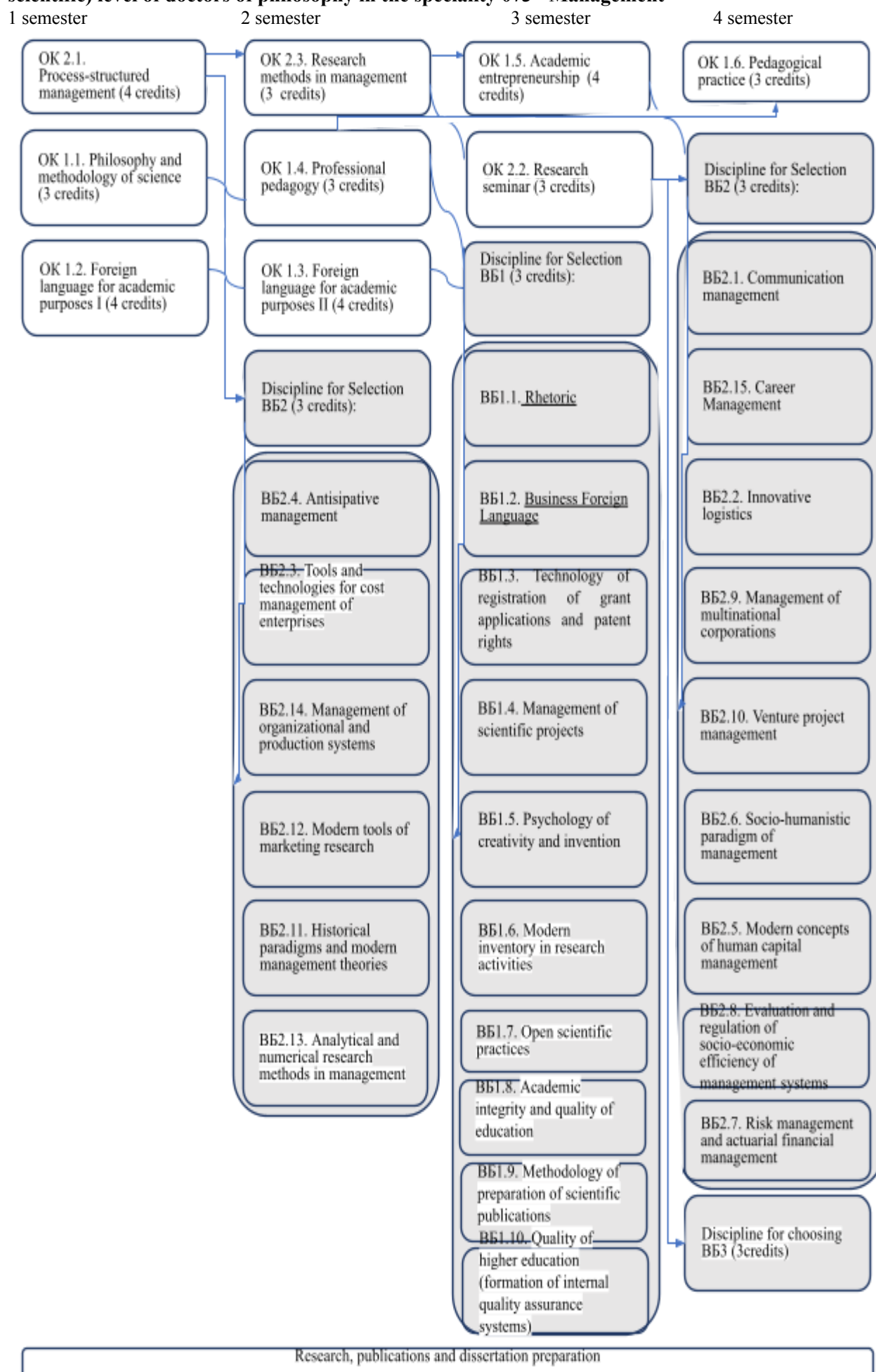
4. Matrix of correspondence of program **competencies** to educational components

Compe- tencies	Disciplines									
	OK1. 1.	OK1. 2.	OK1. 3.	OK1. 4.	OK1. 5.	OK1. 6.	OK2. 1.	OK2. 2.	OK2. 3.	
IC	•	•	•	•	•	•	•	•	•	•
GC1	•									
GC 2	•							•	•	
GC 3		•	•							
GC 4					•		•	•	•	
FC 1								•	•	
FC 2		•	•		•				•	
FC 3				•		•				
FC 4					•			•		
FC 5	•						•			

5. Matrix for providing software learning outcomes with relevant components of the educational component

Disciplines Learning outcomes	OK1. 1.	OK1. 2.	OK1. 3.	OK1. 4.	OK1. 5.	OK1. 6.	OK2. 1.	OK2. 2.	OK2. 3.
PH1								•	•
PH2	•	•	•						
PH3					•			•	•
PH4	•				•			•	•
PH5				•		•	•		
PH6							•	•	•
PH7	•	•	•				•	•	•
PH8	•			•		•			
PH9	•						•		

6. Structural and logical scheme of the educational component-ONP at the third (educational and scientific) level of doctors of philosophy in the speciality 073 "Management"



II. The scientific component of the educational and scientific program

The scientific component of the educational and scientific program involves the implementation of the graduate student's research under the guidance of one or two supervisors and the registration of its results in the form of a dissertation.

The dissertation for the degree of Doctor of Philosophy is an independent detailed research that offers the solution of a topical scientific and applied problem in the speciality 073 "Management", the results of which are characterized by scientific novelty and practical value and published in relevant publications.

The scientific component of the educational and scientific program is made out in the form of the individual plan of scientific work of the postgraduate student. It is an integral part of the curriculum of postgraduate study.

An integral part of the scientific component of the educational and scientific program of postgraduate study is the preparation and publication of scientific articles, presentations at scientific conferences, professional scientific seminars, round tables, symposiums, etc.

Topics of research in the speciality 073 "Management":

1. Socio-economic tools for managing the creativity of enterprise personnel.
2. Economic modelling of the effectiveness of enterprise management.
3. Management of intellectualization of export-oriented products of enterprises.
4. Formation and use of reengineering systems at enterprises in the context of European integration processes.
5. Management of enterprises in a circular economy.
6. Models of functioning and development of information technologies in Ukraine.
7. Management of enterprises in terms of integration of production processes and network information technologies.
8. Formation and development of event management.
9. Ensuring the effectiveness of personnel management in social enterprises.
10. Development of e-business and digitalization of enterprises.
11. Problems of management systems formation in European integration conditions.
12. Logistics concept in the activities of enterprises.
13. Innovative logistics in the development of enterprise management systems.
14. Formation of management systems of the organization based on the stakeholders' interests.
15. Development of process-structured management in enterprises' cross-border cooperation conditions.
16. Formation and development of research systems in higher education institutions.
17. Development of stress management systems in the context of intensifying international cooperation.
18. Formation of info-communication management systems based on the development of IT technologies.
19. Forecasting the creative economy's impact on enterprises' activities.

20. Development of **anticipative** management in enterprises.
21. Development of reflective management.
22. Development of adaptive management.
23. Formation of systems of business administration of activity of the enterprises.
24. Construction of management systems for foreign economic activity at enterprises.
25. Construction of customs management systems at enterprises.
26. Construction of management systems for information activities in enterprises.
27. Assessment and prevention of bankruptcy of enterprises.
28. Assessment and management of economic risks of enterprises (by type of activity).
29. Economic evaluation and management of freelance activities.
30. Building a communication management system.
31. Formation and development of strategies for the competitiveness of enterprises in international markets.
32. Economic evaluation and management of competitiveness of enterprises in international markets.
33. Development of enterprise management in a circular economy.

III. PhD students' attestation

A specialized academic council attests applicants for the degree of Doctor of Philosophy, permanent or formed for one-time defence, based on the public defence of scientific achievements in the form of a dissertation.

Completing their curriculum is a prerequisite for admission to the defence.

The volume of the main text of the dissertation should be 4.0 - 5.5 author's sheets.

The condition for certification of applicants for the degree of Doctor of Philosophy **in** compliance with the principles of academic integrity, taking into account the provisions of the Regulations on Academic Integrity at the Lviv Polytechnic National University.