

MINISTRY OF HEALTH OF UKRAINE  
ODESA NATIONAL MEDICAL UNIVERSITY

APPROVED

by the Academic Council  
Odessa National Medical University  
« 24 » 04 2025

Minute No. 8



PUT INTO ACTION

by the order  
Rector of Odessa National Medical  
University

Vateryy ZAPOROZHAN  
« 24 » 04 2025  
No. 237-0

EDUCATIONAL PROGRAM  
«Management of health care and pharmaceutical business»

TRAINING OF SPECIALISTS OF THE SECOND (MASTER'S) LEVEL OF  
HIGHER EDUCATION

Specialty	D3 Management
Field of Study	D Business, Administration and Law
Educational Qualification	Master of Management

**LETTER OF APPROVAL  
EDUCATIONAL PROGRAM  
«Management of health care and pharmaceutical business»**

**1. INTRODUCED:**

Subject-Cycle Methodological Commission for Humanities  
Protocol No. 3 of 28.01.2025

**2. ADOPTED:**

Central Coordinating Methodological Council  
Odessa National Medical University

**Minute No. 6 of 29.01.2025**

  
\_\_\_\_\_ **Nina MATSEGORA**

## **PREFACE**

Developed by a project team consisting of:

Guarantor of the educational program:

Viktoriiia Borshch - Doctor of Economics, Professor of the Department of Health Care Management of Odesa National Medical University.

### **Project group:**

- Valeriia Marichereda – Principal Vice-Rector of Odesa National Medical University, Doctor of Medical Sciences, Professor, Master of Public Administration;
- Olena Rudinskaia – Head of the Department of Health Care Management, Ph.D. in Economics, Associate Professor;
- Oleksandr Rogachevskyi – Head of the Department of Simulation Medical Technologies, Doctor of Economics, Associate Professor;
- Olena Martyniuk – Professor of the Department of Health Care Management, Doctor of Economics, Professor;
- Nataliia Kusykh – Associate Professor of the Department of Health Care Management, Ph.D., Associate Professor;
- Iryna Annenkova – Professor of the Department of Health Care Management, Doctor of Pedagogical Sciences, Professor;
- Iryna Yablonskaia – student of the first (master's) level of higher education in the specialty D3 Management.

### **Professional examination of the educational and professional program was carried out by:**

- Lilia Kriachkova – Doctor of Medical Sciences, Professor, Head of the Department of Social Medicine, Public Health and Health Management of the Dnipro State Medical University (Dnipro);
- Valentyna Khrapkina – Doctor of Economics, Professor, Professor, Department of Marketing and Business Management, National University "Kyiv-Mohyla Academy" (Kyiv);
- Denys Sebov – Doctor of Medical Sciences, Professor, Director of KNP "City Clinical Hospital No. 10" of the Odessa City Council (Odessa);
- Lyashenko-Shcherbakova Valeria Valeriyevna – Head of the State Service for Medicines and Drug Control in the Odessa region (Odessa);
- Albina Khakimova – deputy head of the department – head of the contractual work department of the department in Odessa and in the Odessa region of the Southern Interregional Department of the National Health Service of Ukraine (Odessa).

## PROFILE OF EDUCATIONAL PROGRAM

### 1.1. General Information

<b>Full name of the institution of higher education</b>	Odesa National Medical University
<b>Higher Education Degree</b>	Degree of Education – Master Educational qualification – Master of Management Qualification in the diploma – Master in the field of study D “Business, Administration and Law”, specialty D3 “Management”
<b>Official name of educational program</b>	<b>Management of health care and pharmaceutical business</b>
<b>Type of diploma and scope of educational program</b>	Master's degree, single, 90 ECTS credits.
<b>Availability of accreditation</b>	Certificate of accreditation of educational program No. 10084 dated 15.01.2025
<b>Cycle/Level</b>	NRC of Ukraine – level 7, FQ-EHEA – second cycle, EQF-LLL – level 7.
<b>Prerequisites</b>	A person has the right to obtain a master's degree on the basis of the degree of "bachelor," "master" or the educational qualification level of "specialist," of various professional directions (according to the results of the Unified Professional Entrance Test and the Unified Entrance Exam in a foreign language). No age limit.
<b>Language (s)</b>	English, Ukrainian
<b>Duration of study</b>	1 year 4 months
<b>Internet address of the permanent placement of the description of the educational program</b>	<a href="https://onmedu.edu.ua/osvita/osvitni-programi/">https://onmedu.edu.ua/osvita/osvitni-programi/</a>

### 1.2. The goal of the educational program

Training of highly qualified managers capable of solving complex and non-standard problems of an innovative and research-oriented nature in the field of healthcare institutions and the pharmaceutical business under conditions of uncertainty, autonomy, and a high level of responsibility for the decisions made.

### 1.3. Description of the educational program

<b>Subject Area (Field of Study, Specialty, Specialization)</b>	Field of Study – D Business, Administration and Law Specialty – D3 Management Educational Program – Management of health care and pharmaceutical business
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<p><b>Description of the Subject Area</b></p>	<p><i>Object of study:</i> management of organizations and their structural units.</p> <p><i>Learning objectives:</i> training of specialists capable of identifying and solving complex tasks and problems in the field of management or during the learning process. These tasks require conducting research and/or implementing innovations and are characterized by uncertainty in conditions and requirements.</p> <p><i>Theoretical content of the subject area:</i></p> <ul style="list-style-type: none"> <li>- paradigms, laws, and regularities;</li> <li>- principles and historical prerequisites for the development of management;</li> <li>- concepts of systems, situational, adaptive, anticipatory, crisis, innovation, project management, etc.;</li> <li>- functions, methods, technologies, and management decisions in the field of management.</li> </ul> <p><i>Methods, methodologies, and technologies:</i></p> <ul style="list-style-type: none"> <li>- general scientific and specific research methods (analytical, economic-statistical, economic-mathematical, expert evaluation, factual, sociological, documentary, balance methods, etc.);</li> <li>- methods for implementing management functions (marketing research methods, economic diagnostics, forecasting and planning methods, organizational structure design, motivation, control, evaluation of social, organizational, and economic efficiency in management, etc.);</li> <li>- management methods (administrative, economic, socio-psychological, technological);</li> <li>- technologies for substantiating management decisions (economic analysis, simulation modeling, decision tree analysis, etc.).</li> </ul> <p><i>Tools and equipment:</i> modern information and communication equipment, information systems, and software products used in management.</p>
<p><b>Orientation of the educational program</b></p>	<p><b>The educational program</b> is an applied program with a professional focus on the theory and practice of managing healthcare institutions and pharmaceutical business operations.</p>
<p><b>Main Focus of the Educational program</b></p>	<p>This is a professionally applied program in the field of management. The structure of the program provides for mastering knowledge in:</p> <ul style="list-style-type: none"> <li>- systemic analysis of organizational performance;</li> <li>- modern technologies for managerial decision-making;</li> </ul>

	<ul style="list-style-type: none"> <li>- methods for developing strategic directions of organizational development and ensuring competitiveness;</li> <li>- methods of managing innovation processes within organizations;</li> <li>- effective personnel motivation strategies;</li> <li>- principles of creating a favorable socio-psychological climate within teams;</li> <li>- and managing team dynamics, with specific consideration of the healthcare sector and pharmaceutical business environment.</li> </ul> <p><i>Key words:</i> management, healthcare institution management, pharmaceutical business management, managerial decision-making, efficiency, investment activities in the healthcare sector, organizational competitiveness, strategic management, planning, organization, motivation, coordination, control.</p>
<p><b>Features of the educational program</b></p>	<p>Full-time and part-time modes of study are available. The program is focused on in-depth specialized training of modern managers in the field of healthcare and pharmaceutical business. It aims to provide higher education students with the competencies necessary for effective management and administration of healthcare institutions and pharmaceutical enterprises. This is achieved through a combination of theoretical and practical training, using innovative teaching methods based at Odesa National Medical University, healthcare institutions, and pharmaceutical organizations.</p> <p>The educational process is grounded in a systematic understanding of processes, forms, and methods; the internal and external environments; and the current legislative and regulatory framework for management activities. It includes mastering methodological and practical approaches to evaluating the status and development prospects of healthcare institutions and the pharmaceutical business.</p> <p>The program requires the mandatory completion of industrial, research-based, and pre-graduation internships at healthcare institutions and/or pharmaceutical enterprises.</p>
<p><b>1.4. Suitability of graduates for employment and further training</b></p>	
<p><b>Employability</b></p>	<p>Upon completion of the Master's Educational Program in "Healthcare and Pharmaceutical Business Management," graduates are qualified to perform professional work in accordance with the National Classifier of Occupations of Ukraine DK 003:2010, including the following roles:</p> <p><i>12 – Heads of enterprises, institutions, and organizations</i>  1210– Executives of enterprises, institutions, and organizations</p>

	<p>1210.1 – Head of a healthcare enterprise (institution, organization) (General Director, Director, Chief Medical Officer, etc.); Head (Manager) of a medical and preventive institution; Chairperson of the board; Chair of the board of directors; Branch Director; Director of a complex (health, sports, tourism); Laboratory Director; Head of a pharmacy (pharmaceutical institution); Head of a pharmaceutical base</p> <p>1222 – Heads of production and other departments</p> <p>1229.1 – Senior officials of central government bodies</p> <p>1229.5 – Heads of healthcare departments</p> <p>1229.7 – Head of a laboratory</p> <p>1231 – Director (Head, Chief, etc.)</p> <p>1238 – Project and program managers</p> <p><i>13 – Heads of small enterprises without management staff</i></p> <p>1319 – Director (Manager) of a small enterprise (in the field of healthcare)</p> <p><i>14 – Managers of enterprises, institutions, organizations, and their departments</i></p> <p>1475.4 – Managers in commercial activities and enterprise management</p> <p>148 – Managers in education, healthcare, and social sectors</p> <p>1482 – Healthcare managers</p> <p>1493 – Quality systems managers</p> <p><i>24 – Other Professionals</i></p> <p>2419 – Professionals in public administration, marketing, economic performance, production rationalization, intellectual property, and innovation</p> <p>2447 – Project and program management specialist</p> <p>2447.2 – Project and program management specialist in material (non-material) production</p> <p><i>34 – Other Specialists</i></p> <p>3436 – Executive assistants</p>
<p><b>Further Education</b></p>	<p>A graduate of the educational and professional program has the right to continue studies at the third (educational and scientific) level of higher education – Doctor of Philosophy (PhD). Additional qualifications may also be obtained through the system of postgraduate education.</p>
<p><b>1.5. Teaching and Assessment</b></p>	
<p><b>Teaching and Learning</b></p>	<p>The organization of the educational process is based on a competency-based, student-centered approach and the principles of andragogy. The educational process involves contextual and problem-based learning, the use of modern information and communication technologies, and the engagement of field practitioners.</p>

	<p>The main forms of organizing the educational process include: lectures, seminars, practical classes, independent work in the form of individual assignments and project work, consultations, and practical training using methods such as business games, case studies, project-based learning, solving analytical and creative problems, and working in small groups.</p>
<b>Assessment</b>	<p>Forms of ongoing (formative) assessment include: continuous assessment, testing, and self-assessment. Forms of final assessment include: credit tests and examinations.</p> <p>Final certification is conducted in the form of a public defense of a qualification (master's) thesis.</p> <p>Assessment and monitoring of students' learning outcomes are carried out in accordance with the Regulations on the Organization of the Educational Process at ONMedU.</p>
<b>1.6. Program Competencies</b>	
<b>Integral Competence of a Master's Degree Holder (Level 7, in accordance with the National Qualifications Framework)</b>	<p>The ability to solve complex tasks and problems in the field of management or during the educational process, which involves conducting research and/or implementing innovations under conditions of uncertainty and changing requirements.</p>
<b>General Competencies (according to the NQF requirements):</b>	<p>GC 1. Ability to conduct research at the appropriate level.</p> <p>GC 2. Ability to communicate with representatives of other professional groups of different levels (with experts from other fields of knowledge/types of economic activity).</p> <p>GC 3. Skills in the use of information and communication technologies.</p> <p>GC 4. Ability to motivate people and work towards a common goal.</p> <p>GC 5. Ability to act based on ethical considerations (motives).</p> <p>GC 6. Ability to generate new ideas (creativity).</p> <p>GC 7. Ability for abstract thinking, analysis, and synthesis.</p> <p>GC 8. Ability to know and understand the subject area and professional activity.</p> <p>GC 9. Ability to adapt and make justified decisions in new situations.</p> <p>GC 10. Ability to evaluate and ensure the quality of work performed.</p>
<b>Special (Professional, Subject-Specific) Competencies</b>	<p>SC 1. Ability to select and apply management concepts, methods, and tools, including in accordance with defined objectives and international standards.</p> <p>SC 2. Ability to establish values, vision, mission, goals, and criteria by which the organization determines its future</p>

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directions, and to develop and implement appropriate strategies and plans.

SC 3. Ability for self-development, lifelong learning, and effective self-management.

SC 4. Ability to effectively utilize and develop the resources of a healthcare institution.

SC 5. Ability to create and organize effective communication in the management process.

SC 6. Ability to develop leadership qualities and demonstrate them in managing people.

SC 7. Ability to design and manage projects, demonstrate initiative and entrepreneurship.

SC 8. Ability to apply psychological techniques in working with personnel.

SC 9. Ability to analyze and structure organizational problems, make effective managerial decisions, and ensure their implementation.

SC 10. Ability to manage an organization and guide its development.

SC 11. Ability to apply methods and standards for modeling and optimizing organizational business processes (including in healthcare and pharmaceutical institutions).

SC 12. Ability to effectively carry out financial activities and build the financial policy of an organization (including healthcare and pharmaceutical institutions).

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### **1.7. Program Learning Outcomes**

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PLO 1. Critically reflect on, select, and apply the necessary scientific, methodological, and analytical tools for management in unpredictable conditions.

PLO 2. Identify problems within an organization and justify methods for solving them.

PLO 3. Design effective management systems for organizations.

PLO 4. Justify and manage projects, generate entrepreneurial ideas.

PLO 5. Plan organizational activities at both strategic and tactical levels.

PLO 6. Possess the skills to make, justify, and ensure the implementation of managerial decisions under uncertain conditions, taking into account current legislation, ethical considerations, and social responsibility.

PLO 7. Organize and carry out effective communication within a team, with representatives of various professional groups, and in an international context.

PLO 8. Use specialized software and information systems to solve organizational management tasks.

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	<p>PLO 9. Communicate professionally and academically in both the state language and a foreign language.</p> <p>PLO 10. Demonstrate leadership skills and the ability to work in a team, interact with people, and influence their behavior to solve professional tasks.</p> <p>PLO 11. Ensure personal professional development and effective time management.</p> <p>PLO 12. Delegate authority and lead an organization (or its structural unit).</p> <p>PLO 13. Plan and implement informational, methodological, material, financial, and human resource support for an organization (or its unit).</p> <p>PLO 14. Perform modeling and optimization of business processes within an organization (including healthcare and pharmaceutical institutions).</p> <p>PLO 15. Ensure effective implementation of financial activities and develop the financial policy of an organization (including healthcare and pharmaceutical institutions).</p>
<p><b>1.8. Resource Support for Program Implementation</b></p>	
<p><b>Human Resources</b></p>	<p>All academic and teaching staff involved in the implementation of the educational and professional components of the program possess a confirmed level of scientific and professional activity and are full-time employees of ONMedU under the Ministry of Health of Ukraine. Guest lectures are delivered with the involvement of experienced field practitioners.</p> <p>The program is implemented by instructors who have completed academic and pedagogical internships abroad and in relevant industries, and who participate in international educational and scientific projects.</p>
<p><b>Material and Technical Resources</b></p>	<p>The material and technical base of ONMedU fully supports the educational process across all disciplines at an appropriate scientific and methodological level. Lecture halls and classrooms are equipped with modern multimedia systems, teaching aids, and computer technology. Industrial and pre-graduation internships are conducted in ONMedU's university clinics, at the university's clinical training bases, or through current agreements with healthcare and/or pharmaceutical institutions.</p>
<p><b>Information and Educational-Methodological Support</b></p>	<p>Educational and methodological support includes guidelines for lectures and practical classes, instructions for independent study, materials for internships, assignments for knowledge assessment, and recommendations for the preparation of the master's thesis. All materials are available electronically at <a href="https://info.odmu.edu.ua/">https://info.odmu.edu.ua/</a> and via Moodle and Microsoft Teams.</p>

	<p>ONMedU provides access to modern information resources and computing equipment.</p> <p>The official university website contains comprehensive information on educational programs, academic, research, and student life, structural units, admission rules, international cooperation, class schedules, and contact information.</p> <p>The ONMedU Library is a modern innovative hub of the university, with a collection of over 900,000 documents in Ukrainian and foreign languages, including up-to-date textbooks, scientific literature, reference books, and professional periodicals. The electronic library consists of more than 5,000 documents, mainly educational content. The electronic catalog includes over 170,000 records and operates 24/7 with secure authorized access to all digital resources. Access is provided to international bibliographic and scientometric databases (Hinari, Scopus, Web of Science, EBSCO, and others), along with an annual subscription to scientific journals, including English-language publications.</p> <p>In the event of a shift to blended or distance learning, classes are conducted using the Microsoft Teams platform.</p>
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### **1.9. Academic Mobility**

<p><b>National Credit Mobility</b></p>	<p>National credit mobility is carried out in accordance with the Law of Ukraine "On Higher Education," the Resolution of the Cabinet of Ministers of Ukraine No. 579 "On Approval of the Procedure for Exercising the Right to Academic Mobility" dated August 12, 2015 (as amended on May 21, 2022), and internal regulatory documents. The recognition of learning outcomes achieved at other educational institutions within the framework of academic mobility is carried out in accordance with agreements concluded by Odesa National Medical University.</p>
<p><b>International Credit Mobility</b></p>	<p>International mobility is implemented through participation in the Erasmus+ program, cooperation agreements, and other international programs (such as British Council, DAAD, etc.), as well as through travel grants.</p>
<p><b>Education of International Students</b></p>	<p>The education of international students is carried out in accordance with the legislation and the Admission Regulations of Odesa National Medical University. Education is provided in the Ukrainian language.</p>

## 2. LIST OF COMPONENTS OF THE EDUCATIONAL PROGRAM AND THEIR LOGICAL STRUCTURE

### 2.1. List of Components of the Educational Program

Code	Components of the Educational Program (Courses, Internships, Qualification Thesis)	Number of Credits / Form of Assessment
<b>1. COMPULSORY COMPONENTS</b>		
<b>1.1. General Training Disciplines</b>		
CC 1	Business Foreign Language	4,0 / test
CC 2	Methodology and Organization of Scientific Research with Module “Academic Integrity”	3,0 / exam
<b>Total</b>		<b>7,0</b>
<b>1.2. Professional Training Disciplines</b>		
CC 3	Business Planning in Healthcare and Pharmaceutical Business	4,0 / exam
CC 4	Innovation Management and Innovative Entrepreneurship	3,0 / test
CC 5	Information and Analytical Support in Healthcare Institution Management	3,0 / test
CC 6	Medical and Pharmaceutical Law	3,0 / test
CC 7	Medical and Pharmaceutical Management	4,0 / test
CC 8	Business Process Modeling and Optimization	3,0 / test
CC 9	Strategic Management	3,0 / exam
CC 10	Project Management in Healthcare	3,0 / exam
CC 11	Financial Management	3,0 / exam
CC 12	HR Management with Psychology of Management Module	4,0 / test
<b>Total</b>		<b>33,0</b>
<b>1.3. Practical Training Disciplines</b>		
CC 13	Industrial Practice	6,0 / dif. test
CC 14	Educational and Research Practice	3,0 / dif. test
CC 15	Pre-graduation Practice	6,0 / dif. test
<b>Total</b>		<b>15,0</b>
<b>1.4. Attestation</b>		
CC 16	Preparation of Qualification Thesis	10,5
	Defense of Qualification Thesis	1,5 / Defense
<b>Total</b>		<b>12,0</b>
<b>Total volume of compulsory components</b>		<b>67,0</b>

## 2. ELECTIVE COMPONENTS

### *Block of elective disciplines 1*

*Student must choose 12.0 ECTS credits*

<b>Professional Management Courses</b>	Investment Management in Healthcare	3,0 / test
	Organization and Management of an Electronic Healthcare System	
	Crisis Management	
	Competitiveness Management in Healthcare and Pharmacy	
	Marketing and Commercialization of Innovations	
<b>Quality Management Systems</b>	Standardization and Certification	3,0 / test
	ISO in Healthcare	
	ISO in the Pharmaceutical Business	
	Quality Management in Healthcare and Pharmacy	
	Intellectual Property Management	
<b>Marketing management</b>	Marketing of Medical Services	3,0 / test
	Brand Management	
	Advertising Technologies	
	Marketing Research in the Healthcare Sector	
	Pricing Policy Management	
<b>Effective Leadership</b>	Psychology in Management	3,0 / test
	Business Ethics and Social Responsibility	
	Team Building and Leadership	
	Communication Management	
	Techniques of Recovery and Development of Psychological Resources	

### *Block of elective disciplines 2*

*Student must choose 11.0 ECTS credits*

<b>Financial Mechanisms and Instruments</b>	Taxation in the Healthcare Sector	4,0 / test
	Taxation in the Pharmaceutical Business	
	Managerial Audit	
	Financial and Economic Diagnostics	
	Budgeting Processes and Procurement	
<b>General Medical Training</b>	Professional Medical Communication. Modern Communication Protocols	4,0 / test
	First Aid and Pre-Medical Care	
	Tactical Medical Assistance	
	Emergency Medicine. Practical Aspects. Simulation-Based Training	

<b>EC 2.3</b> Emotional Intelligence of a Manager	Psychotherapy: Modern Concepts and Principles	3,0 / test
	Management of Common Mental Disorders According to the mhGAP Guidelines	
	Stress Management	
	Psychology of Conflict Management	
	Psychology of Communication in the Management System	
<b>Total volume of elective components</b>		<b>23,0</b>
<b>TOTAL VOLUME OF THE COMPONENTS OF THE EDUCATIONAL PROGRAM</b>		<b>90,0</b>

## 2.2. Sequence of the student's educational activities by educational components

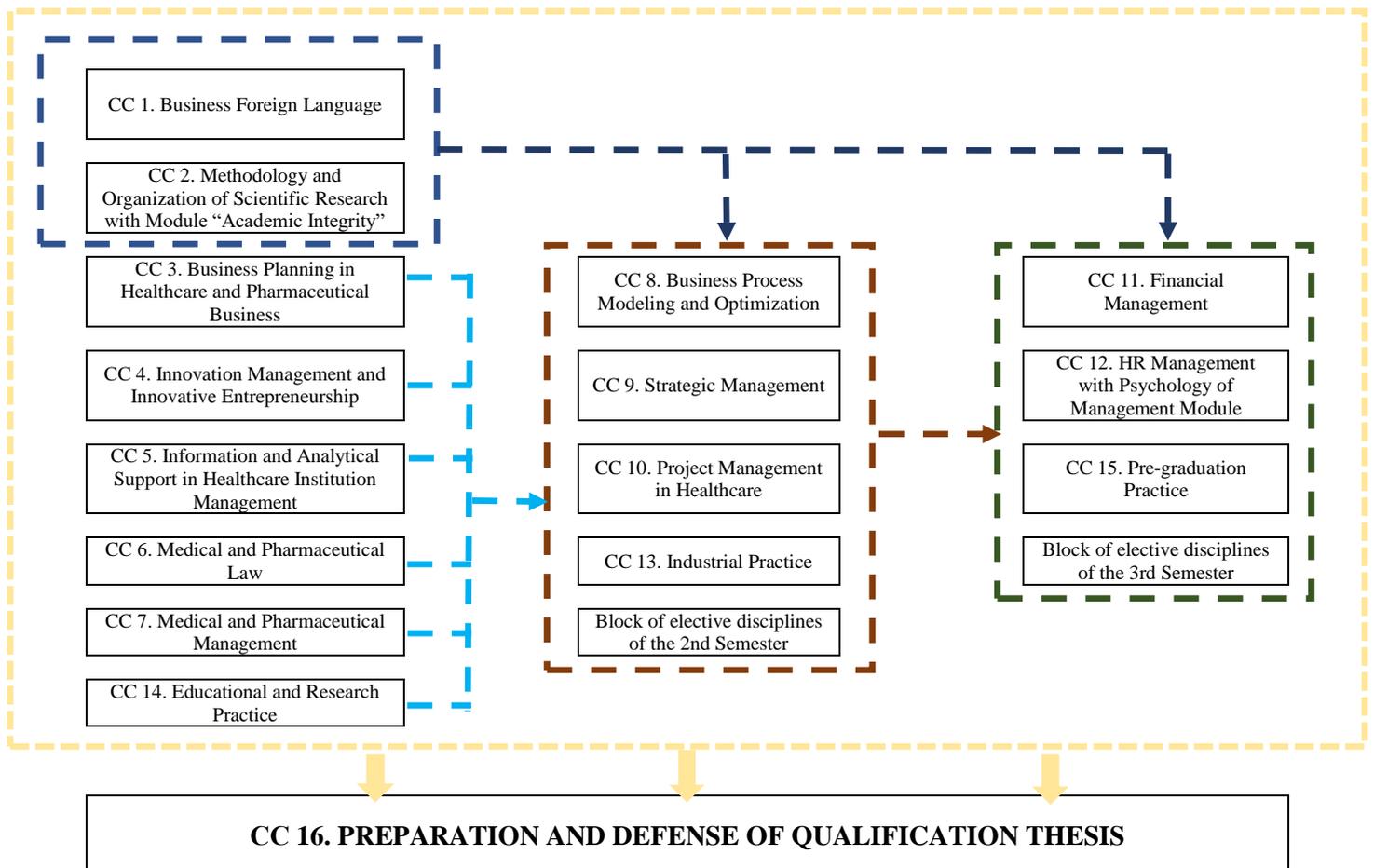
№	Name of the academic discipline	Distribution by academic semesters		
		1	2	3
1.	Business Foreign Language	●		
2.	Medical and Pharmaceutical Law	●		
3.	Methodology and Organization of Scientific Research with Module “Academic Integrity”	●		
4.	Business Planning in Healthcare and Pharmaceutical Business	●		
5.	Innovation Management and Innovative Entrepreneurship	●		
6.	Information and Analytical Support in Healthcare Institution Management	●		
7.	Medical and Pharmaceutical Management	●		
8.	Educational and Research Practice	●		
9.	Business Process Modeling and Optimization		●	
10.	Strategic Management		●	
11.	Project Management in Healthcare		●	
12.	Industrial Practice		●	
13.	<i>Block of elective disciplines 12.0 ECTS credits</i>		●	
14.	Financial Management			●
15.	HR Management with Psychology of Management Module			●
16.	Pre-graduation Practice			●
17.	<i>Block of elective disciplines 11.0 ECTS credits</i>			●
18.	<i>Preparation of Qualification Thesis</i>	●	●	●
19.	<i>Defense of Qualification Thesis</i>			●

Learning outcomes are determined based on types of educational activities as specified of the program learning outcomes in the Work Program of academic

disciplines and practices. They are used as criteria for selecting the necessary content sections and corresponding educational elements.

The Work Program of an academic discipline defines the total time allocated for mastering the material, the form of final assessment, the list of core competencies, requirements for informational and methodological support, evaluation criteria, and the structure of the academic discipline.

### 2.3. Structural and Logical Diagram of the Educational Program



### 2.3. MATRIX OF THE COMPLIANCE OF THE PROGRAM COMPETENCIES

Components of the EP	PROGRAM COMPETENCIES																						
	IC	GC1	GC2	GC3	GC4	GC5	GC6	GC7	GC8	GC9	GC10	SC1	SC2	SC3	SC4	SC5	SC6	SC7	SC8	SC9	SC10	SC11	SC12
CC1	+		+	+												+							
CC2	+	+				+		+				+								+			
CC3	+						+	+	+	+		+	+		+			+			+	+	+
CC4	+		+				+		+	+		+	+		+	+		+		+			+
CC5	+			+				+								+				+			
CC6	+		+			+			+			+				+				+			
CC7	+		+		+				+	+	+	+	+				+		+	+	+		
CC8	+			+				+		+		+			+					+		+	
CC9	+						+		+	+		+	+								+	+	
CC10	+	+					+		+	+					+			+			+		+
CC11	+								+	+		+	+		+						+		+
CC12	+		+	+	+				+	+		+	+	+	+	+	+		+				
CC13	+		+				+	+		+	+								+	+		+	
CC14	+	+					+					+		+								+	
CC15	+		+				+			+	+	+							+	+	+	+	
CC16	+	+					+	+			+	+	+	+						+	+	+	

IC – Integral Competence

GC – General Competence

SC – Special Competence

**2.4. MATRIX OF ENSURING THE PROGRAM LEARNING OUTCOMES (PLO)  
BY THE RELEVANT COMPONENTS OF THE EDUCATIONAL PROGRAM**

Components of the EP	PROGRAM LEARNING OUTCOMES														
	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11	PLO 12	PLO 13	PLO 14	PLO 15
CC1							+		+						
CC2	+	+				+								+	
CC3		+	+	+	+								+	+	+
CC4	+	+	+	+			+			+			+		+
CC5	+	+					+	+					+		
CC6	+	+				+	+								
CC7		+	+			+					+	+			
CC8	+		+					+					+	+	
CC9		+	+	+	+								+	+	
CC10			+	+				+							+
CC11			+										+		+
CC12			+				+			+	+	+	+		
CC13		+		+	+	+				+	+		+	+	
CC14	+	+	+						+		+		+	+	
CC15		+	+			+	+			+	+		+	+	
CC16	+	+	+	+	+						+			+	

PLO – Program Learning Outcomes

### 3. FORMS OF ATTESTATION OF STUDENTS

By the Higher Education Standard for Specialty 073 "Management" within the field of knowledge 07 "Management and Administration" at the second (master's) level of higher education (Order of the Ministry of Education and Science of Ukraine No. 959 dated July 10, 2019), the attestation of graduates under the educational program "Management of health care and pharmaceutical business" is carried out in the form of a public defense of the qualification thesis.

The requirements regarding the content and formatting of the qualification thesis are outlined in the methodological guidelines for the preparation and formatting of qualification theses at Odesa National Medical University.

The qualification thesis must address a complex task or problem in the field of healthcare and pharmaceutical business management that requires conducting research and/or implementing innovations. The task should be characterized by complexity and uncertainty of conditions and must involve the application of relevant economic theories and methods. The thesis must not contain academic plagiarism, falsification, or fabrication. The qualification thesis is subject to publication in the Institutional Repository of Odesa National Medical University.

The attestation process is conducted openly and publicly, and concludes with the Examination Committee awarding the qualification "Master in Management under the educational and professional program Healthcare and Pharmaceutical Business Management", along with the issuance of a state-recognized diploma certifying the award of the master's degree. The personnel composition of the Examination Committee is approved by the Rector's order.

**Guarantor of the Educational Program,**  
Assistant to the Rector, Professor of the Department  
of Healthcare Management  
Doctor of Economics, Associate Professor



Viktoriia BORSHCH