

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
KYIV NATIONAL UNIVERSITY OF TECHNOLOGIES AND DESIGN

**EDUCATIONAL PROFESSIONAL PROGRAM**  
**MANAGEMENT**

Level of higher education first (bachelor's)

Degree of higher education Bachelor's degree

Field of knowledge 07 Management and administration

Specialty 073 Management

Qualification Bachelor of Management

Kyiv 2021

# 1. Profile of the educational-professional program Management

| <b>1 – General information</b>  |   |
|---|---|
| <b>Full name of the institution of higher education and structural unit</b>   | Kyiv National University of Technologies and Design.<br>Department of Management and Public Administration.   |
| <b>Higher education degree and qualification in the original language</b>   | The level of higher education is the first (bachelor's).<br>Degree of higher education - bachelor.<br>Field of knowledge - 07 Management and administration.<br>Specialty - 073 Management.   |
| <b>Type of diploma and scope of educational and professional program</b>  | Bachelor's degree, single, 240/180 ECTS credits for a reduced period of study.  |
| <b>Availability of accreditation</b>  | Certificate № 11007960 dated February 25, 2019 valid until July 1, 2024.  |
| <b>Cycle / level</b>  | The National Qualifications Framework of Ukraine is the sixth level   |
| <b>Prerequisites</b>  | Complete general secondary education, professional higher education or junior bachelor's degree (junior specialist). According to the Standard of Higher Education in the specialty based on the degree of junior bachelor (OQR of the junior specialist), the University recognizes and recalculates ECTS credits received within the previous educational program of junior bachelor (junior specialist). |
| <b>Language</b>   | English   |
| <b>Term of the educational program</b>  | Until July 1, 2023.   |
| <b>Internet address of the permanent placement of the description of the educational program</b>  | <a href="https://en.knutd.edu.ua/ects/">https://en.knutd.edu.ua/ects/</a>   |
| <b>2 – The purpose of the educational and professional program</b>  |   |
| <p>The goal is to train specialists who have deep knowledge, as well as basic and professional competencies in management and administration; can identify and solve complex, specialized problems and practical problems of managing organizations based on the development of their intellectual capabilities, and will be competitive in national and international labor markets.</p> <p>The main objectives of the program are:</p> <ul style="list-style-type: none"> <li>training of specialists capable of solving practical problems and complex, specialized tasks, characterized by complexity and uncertainty of conditions in the field of management of organizations and their departments;</li> <li>formation of a theoretical basis for understanding the patterns of development of the business environment, the formation of practical skills for the development of management decisions on enterprise development policy and ensuring their competitiveness;</li> <li>orientation of applicants for self-development and self-improvement in the field of professional activity.</li> </ul> |   |
| <b>3 – Characteristics of educational and professional programs</b>   |   |
| <b>Subject area</b>   | The program is focused on the formation of applicants for competencies to acquire deep knowledge, skills, and abilities in the specialty.   |

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|  | <p>Compulsory educational components – 75%, of which: disciplines of general training – 30%, vocational training – 44%, practical training – 13%, learning a foreign language – 13%. Disciplines of free choice of students – 25% are selected from the university catalog in accordance with the approved procedure at the University.</p> <p>The object of study: management of organizations and their departments.</p> <p>Theoretical content of the subject area: paradigms, laws, patterns, principles, historical prerequisites for management development; concepts of system, situational, adaptive, anticipative, anti-crisis, innovation, project management, etc.; functions, methods, technologies and management decisions in management.</p> <p>Methods, techniques, and technologies: general scientific and specific research methods (calculation-analytical, economic-statistical, economic-mathematical, expert evaluation, factual, sociological, documentary, balance sheet, etc.); methods of realization of management functions (methods of marketing researches; methods of economic diagnostics; methods of forecasting and planning; methods of designing of organizational structures of management; methods of motivation; methods of control; methods of estimation of social, organizational and economic efficiency in management, etc.). Methods of management (administrative, economic, socio-psychological, technological); technologies for substantiation of management decisions (economic analysis, simulation modeling, decision tree, etc.).</p> <p>Tools and equipment: modern information and communication equipment, information systems and software products used in management.</p> |
| <b>Orientation of the educational program</b>    | Educational and professional program for bachelor's degree.   |
| <b>The main focus of the educational program</b> | <p>The program is focused on the formation of applicants for competencies to acquire deep knowledge, skills, and abilities in the specialty 073 Management. Emphasis is placed on the formation and development of professional competencies in the field of management based on the study of theoretical and methodological provisions, organizational and practical tools for managing the activities of economic entities of various organizational and legal forms and activities.</p> <p>Practical focus on solving management problems, formation of analytical, leadership, administrative competencies of a specialist in the field of corporate governance and administration.</p> <p>The program develops prospects for training management professionals taking into account the peculiarities of the business environment.</p>  |
| <b>Features of the educational program</b>       | <p>The program is focused on improving the methods and techniques of corporate governance following the reforms taking place in the country and the guidelines of the global market; takes into account innovative trends in professional training in the field of management; provides the formation of a set of competencies for graduates, based on modern methodological approaches and principles of functioning of the corporate governance system.</p> <p>The structure of the program provides a combination of theory and practice of management and administration based on an interdisciplinary approach.</p>  |

| <b>4 – Suitability of graduates for employment and further study</b> |  |   |
|--|--|---|
| Suitability for employment   | <p>The graduate is suitable for employment in organizations and institutions operating within all major economic activities (mining and processing industries, construction, agriculture, financial activities, etc.).</p> <p>The specialist may hold primary positions: administrative manager; HR-manager; general manager; operations manager; office manager; advertising, promotions, and marketing managers; manager for regional development; supply manager; head of the government body of public administration; head of the enterprise (institution, organization); head of the structural unit – chief specialist.</p> |   |
| Further training   | Opportunity to study according to the educational-scientific or educational-professional program of the second (master's) level of higher education.   |   |
| <b>5 – Teaching and assessment</b>                                   |  |   |
| Teaching and learning  | <p>Student-centered and problem-oriented learning, learning through educational, industrial, undergraduate practice and self-study are used. The system of teaching methods is based on the principles of purposefulness, binary - active direct participation of research and teaching staff and students of higher education.</p> <p>Forms of organization of the educational process: lecture; seminar, practical, laboratory classes; practical training; individual work; consultations; development of professional projects (works).</p>  |   |
| Evaluation   | Oral and written exams, essays, presentations, reports, tests, term papers (project) work.   |   |
| <b>6 – Program competencies</b>                                      |  |   |
| Integral competence (IC)   | The ability to solve complex specialized problems and practical problems, which are characterized by complexity and uncertainty of conditions, in the field of management or in the learning process, which involves the application of theories and methods of social and behavioral sciences.  |   |
| General Competences (GC)   | GC 1   | Ability to realize their rights and responsibilities as a member of society, to realize the values of civil (democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms.  |
|  | GC 2   | Ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society, and in the development of society, techniques, and technologies for active recreation and leading a healthy lifestyle. |
|  | GC 3   | Ability to abstract thinking, analysis, synthesis.  |
|  | GC 4   | Ability to apply knowledge in practical situations.   |
|  | GC 5   | Knowledge and understanding of the subject area and understanding   |
|  | GC 6   | Ability to communicate in the state language both orally and in writing.  |
|  | GC 7   | Ability to communicate in a foreign language.   |
|  | GC 8   | Skills in the use of information and communication technologies.  |

|                                       |       |  |
|---------------------------------------|-------|--|
|                                       | GC 9  | Ability to learn and master modern knowledge.  |
|                                       | GC 10 | Ability to conduct research at the appropriate level.  |
|                                       | GC 11 | Ability to adapt and act in a new situation.   |
|                                       | GC 12 | Ability to generate new ideas (creativity).  |
|                                       | GC 13 | Appreciation and respect for diversity and multiculturalism.   |
|                                       | GC 14 | Ability to work in an international context.   |
|                                       | GC 15 | Ability to act based on ethical considerations (motives).  |
| <b>Professional competencies (PC)</b> | PC 1  | Ability to identify and describe the characteristics of the organization.  |
|                                       | PC 2  | Ability to analyze the results of the organization, to compare them with the factors of external and internal environment. |
|                                       | PC 3  | Ability to determine the prospects for the development of the organization   |
|                                       | PC 4  | Ability to identify functional areas of the organization and the relationships between them.                               |
|                                       | PC 5  | Ability to manage the organization and its departments through the implementation of management functions.                 |
|                                       | PC 6  | Ability to act socially responsibly and consciously.   |
|                                       | PC 7  | Ability to choose and use modern management tools.   |
|                                       | PC 8  | Ability to plan and manage time.   |
|                                       | PC 9  | Ability to work in a team and establish interpersonal interaction in solving professional problems.                        |
|                                       | PC 10 | Ability to assess and ensure the quality of work performed, motivate the staff of the organization.                        |
|                                       | PC 11 | Ability to create and organize effective communications in the management process.   |
|                                       | PC 12 | Ability to analyze and structure the problems of the organization, to form sound decisions.                                |
|                                       | PC 13 | To understand the principles of law and use them in professional activities.   |
|                                       | PC 14 | To understand the principles of psychology and use them in professional activities.  |
|                                       | PC 15 | Ability to form and demonstrate leadership qualities and behavioral skills.  |

### 7 – Program learning outcomes

#### **Knowledge and understanding:**

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|--------|--|
| PrLO 1 | Know their rights and responsibilities as a member of society, be aware of the values of civil society, the rule of law, human and civil rights and freedoms in the country. |
|--------|--|

#### **Application of knowledge and understanding (skills):**

|        |   |
|--------|---|
| PrLO 2 | To demonstrate knowledge of theories, methods and functions of management, modern concepts of leadership.   |
| PrLO 3 | To demonstrate the ability to act socially responsibly and socially consciously on the basis of ethical considerations (motives), respect for diversity and interculturalism. |
| PrLO 4 | Preserve moral, cultural, scientific values and increase the achievements of society, use different types and forms of physical activity to lead a healthy lifestyle.         |
| PrLO 5 | To demonstrate skills to identify problems and justify management decisions.  |
| PrLO 6 | To describe the content of the functional areas of the organization.  |
| PrLO 7 | To identify skills of search, collection and analysis of information, calculation of indicators to justify management decisions.  |
| PrLO 8 | To demonstrate organizational design skills.  |

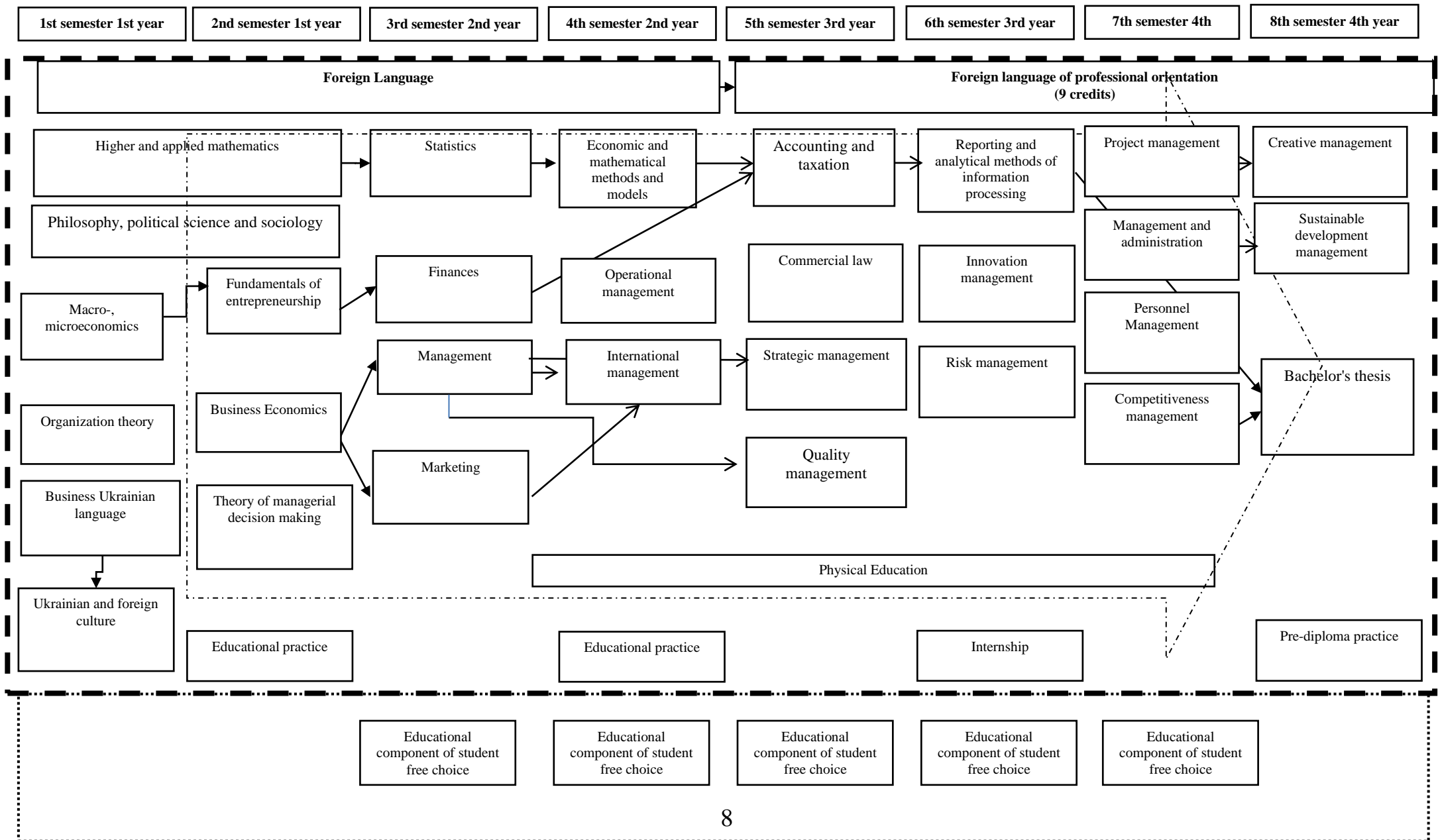
|  |  |
|--|--|
| PrLO 9   | To apply management methods to ensure the effectiveness of the organization.   |
| PrLO 10  | To demonstrate skills of interaction, leadership, teamwork.  |
| PrLO 11  | Have the skills to justify effective tools to motivate staff organizations.  |
| PrLO 12  | Assess the legal, social and economic consequences of the organization.  |
| PrLO 13  | Perform research individually and / or in a group under the guidance of a leader.  |
| PrLO 14  | Demonstrate skills of independent work, flexible thinking, openness to   |
| <b>Formation of judgments:</b>                         |  |
| PrLO 15  | Communicate orally and in writing in state and foreign languages.  |
| PrLO 16  | Demonstrate skills of situation analysis and communication in various areas of the organization.   |
| PrLO 17  | Identify the causes of stress, adapt yourself and team members to stressful situation, find ways to neutralize it.   |
| <b>8 – Resource support for program implementation</b> |  |
| Human resources  | All scientific and pedagogical workers who provide educational and professional program qualification correspond to the profile and direction of the taught disciplines, have the necessary experience of pedagogical work and experience of practical work, confirmed level of scientific and professional activity that meets the requirements of licensing conditions. In the process of organizing training, professionals with experience in research / management / innovation / creative work and / or work in the specialty and foreign lecturers are involved.  |
| Material and technical support                         | Logistics allows to fully ensure the educational process throughout the training cycle of the educational program: modern information and communication equipment, information systems and software products used in management. The condition of the premises is certified by sanitary and technical passports that comply with current regulations.  |
| Information and training support                       | The program is fully equipped with an educational and methodological complex of all components of the educational program, the availability of which is presented in the modular environment of the educational process of the University.<br>The official website <a href="http://www.knutd.edu.ua">http://www.knutd.edu.ua</a> contains information about educational programs, educational, scientific and educational activities, structural units, rules of admission, contacts.<br>Materials of educational and methodical providing of the educational and professional program are stated on the modular environment of educational process <a href="http://msnp.knutd.edu.ua">http://msnp.knutd.edu.ua</a> .<br>The reading room is equipped with wireless Internet access. All library resources are available through the university library website: <a href="http://biblio.co.ua/">http://biblio.co.ua/</a> and the institutional depository <a href="https://er.knutd.edu.ua/">https://er.knutd.edu.ua/</a><br>Free access through the KNUTD website to the databases of professional periodicals (including in English) is provided by the participation of the university library in the ElibUkr consortium. |
| <b>9 – Academic mobility</b>                           |  |
| National credit mobility                               | Provides for the possibility of academic mobility in some components of the educational and professional program, providing the acquisition of general and professional competencies.  |
| International credit mobility                          | The program develops prospects for participation in international projects and programs of international academic mobility of all participants in the educational process.   |
| Training of foreign applicants for higher education    | Training of foreign applicants for higher education is carried out according to accredited educational programs.   |

## 2. The list of components of the educational-professional program and their logical sequence

### 2.1 List of components of the educational-professional program of the first (bachelor's) level of higher education

| Code of educational components                              | Components of the educational-professional program (academic disciplines, term papers, practices, qualification work) | Number of credits | Form of final control |
|---|---|-------------------|-----------------------|
| <b>Required components of the educational program</b>       |   |                   |                       |
| <b>General training cycle</b>                               |   |                   |                       |
| EC 1  | Foreign Language ( <a href="#">english</a> , <a href="#">german</a> , <a href="#">france</a> )                        | 12                | examination           |
| EC 2  | <a href="#">Business Ukrainian language</a>   | 3                 | test                  |
| EC 3  | <a href="#">Philosophy, political science and sociology</a>   | 6                 | examination           |
| EC 4  | <a href="#">Ukrainian and foreign culture</a>   | 3                 | test                  |
| EC 5  | Foreign language of professional orientation ( <a href="#">English</a> )  | 12                | examination           |
| EC 6  | <a href="#">Higher and applied mathematics</a>  | 9                 | examination           |
| EC 7  | <a href="#">Physical Education</a>  | 3/9*              | test                  |
| <b>Total from the cycle</b>                                 |   | 48                |                       |
| <b>Cycle of professional training</b>                       |   |                   |                       |
| EC 8  | <a href="#">Organization theory</a>   | 3                 | examination           |
| EC 9  | <a href="#">Macro, microeconomics</a>   | 6                 | examination           |
| EC 10   | <a href="#">Fundamentals of entrepreneurship</a>  | 6                 | test                  |
| EC 11   | <a href="#">Business Economics</a>  | 3                 | examination           |
| EC 12   | <a href="#">Theory of managerial decision making</a>  | 6                 | examination           |
| EC 13   | <a href="#">Statistics</a>  | 3                 | examination           |
| EC 14   | <a href="#">Finances</a>  | 3                 | examination           |
| EC 15   | <a href="#">Management</a>  | 6                 | examination           |
| EC 16   | <a href="#">Marketing</a>   | 3                 | examination           |
| EC 17   | <a href="#">Economic and mathematical methods and models</a>  | 3                 | examination           |
| EC 18   | <a href="#">International management</a>  | 3                 | examination           |
| EC 19   | <a href="#">Operational management</a>  | 3                 | examination           |
| EC 20   | <a href="#">Accounting and taxation</a>   | 6                 | examination           |
| EC 21   | <a href="#">Strategic management</a>  | 3                 | examination           |
| EC 22   | <a href="#">Quality management</a>  | 3                 | examination           |
| EC 23   | <a href="#">Commercial law</a>  | 3                 | examination           |
| EC 24   | <a href="#">Reporting and analytical methods of information processing</a>  | 3                 | examination           |
| EC 25   | <a href="#">Innovation management</a>   | 3                 | examination           |
| EC 26   | <a href="#">Risk management</a>   | 3                 | examination           |
| EC 27   | <a href="#">Project management</a>  | 3                 | examination           |
| EC 28   | <a href="#">Competitiveness management</a>  | 3                 | examination           |
| EC 29   | <a href="#">Management and administration</a>   | 6                 | examination           |
| EC 30   | <a href="#">Personnel Management</a>  | 3                 | test                  |
| EC 31   | <a href="#">Creative management</a>   | 3                 | examination           |
| EC 32   | <a href="#">Sustainable development management</a>  | 6                 | examination           |
| EC 33   | Educational practice  | 12                | test                  |
| EC 34   | Internship  | 6                 | test                  |
| EC 35   | Pre-diploma practice  | 6                 | test                  |
| EC 36   | Bachelor's thesis   | 12                | attestation           |
| <b>Total from the cycle</b>                                 |   | 132               |                       |
| <b>The total amount of required components</b>              |   | <b>180</b>        |                       |
| <b>Selective components of OP</b>                           |   |                   |                       |
| ECFC  | Educational components of free choice of the student  | 60                | test                  |
| <b>The total amount of sample components</b>                |   | <b>60</b>         |                       |
| <b>TOTAL VOLUME OF THE EDUCATIONAL PROFESSIONAL PROGRAM</b> |   | <b>240</b>        |                       |

## 2.2 Structural and logical scheme of the educational and professional program Management in the specialty 073 Management





### 3. Form of certification of applicants for higher education

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| <b>Form of certification of applicants for higher education</b> | Certification is carried out in the form of public defense of the bachelor's thesis. |
| <b>Higher education document</b>                                | Bachelor's degree with the educational qualification of Bachelor of Management.      |

### 4. Matrix of correspondence of program competencies to the components of the educational-professional program

| ШИФР  | GC 1 | GC 2 | GC 3 | GC 4 | GC 5 | GC 6 | GC 7 | GC 8 | GC 9 | GC 10 | GC 11 | GC 12 | GC 13 | GC 14 | GC 15 | PC 1 | PC 2 | PC 3 | PC 4 | PC 5 | PC 6 | PC 7 | PC 8 | PC 9 | PC 10 | PC 11 | PC 12 | PC 13 | PC 14 | PC 15 |   |
|-------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|---|
| EC 1  |      | +    |      |      |      |      | +    |      |      |       |       |       |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |   |
| EC 2  |      |      |      |      |      | +    |      |      |      |       |       |       |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |   |
| EC 3  | +    | +    | +    |      |      |      |      |      |      |       |       |       |       |       |       |      |      |      |      |      |      | +    |      |      |       |       | +     | +     |       |       |   |
| EC 4  |      | +    |      |      |      | +    |      |      |      |       |       |       |       |       |       |      |      |      |      |      |      | +    |      |      |       |       |       |       |       |       |   |
| EC 5  |      |      |      |      |      |      | +    |      |      |       |       |       |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |   |
| EC 6  |      |      | +    |      |      |      |      |      |      |       |       |       |       |       | +     |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |   |
| EC 7  |      | +    |      |      |      |      |      |      |      |       |       |       |       |       |       |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |   |
| EC 8  |      |      | +    |      |      |      |      |      | +    |       |       |       |       |       |       | +    |      |      |      |      |      |      |      |      |       |       |       | +     |       |       |   |
| EC 9  |      |      | +    |      |      |      |      |      | +    |       |       |       |       |       |       | +    |      |      |      |      |      |      |      |      |       |       |       | +     |       |       |   |
| EC 10 |      |      |      |      |      |      |      |      | +    |       |       |       |       |       |       |      | +    |      | +    |      |      |      |      |      |       |       |       |       | +     |       |   |
| EC 11 |      |      |      |      |      |      |      |      | +    |       |       |       |       |       |       | +    |      |      | +    |      |      |      |      |      |       |       |       |       |       |       |   |
| EC 12 |      |      | +    |      | +    |      |      |      |      |       |       |       |       |       |       |      | +    |      |      |      | +    |      |      |      |       | +     | +     |       |       |       |   |
| EC 13 |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |      | +    | +    | +    |      |      |      |      |      |       |       |       |       |       |       |   |
| EC 14 |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |      | +    | +    | +    |      |      |      |      |      |       |       |       |       |       |       |   |
| EC 15 |      |      |      | +    | +    |      |      |      |      |       |       |       |       |       |       |      |      | +    | +    | +    |      | +    |      | +    | +     |       | +     |       | +     | +     |   |
| EC 16 |      |      |      | +    |      |      |      |      | +    |       |       |       |       |       |       |      |      | +    |      |      |      |      |      |      |       |       |       |       |       |       |   |
| EC 17 |      |      |      | +    |      |      |      |      | +    |       |       |       |       |       |       | +    |      |      |      |      |      |      |      |      |       |       |       | +     |       |       |   |
| EC 18 | +    |      |      |      |      |      |      |      |      |       |       |       |       |       |       |      |      |      |      |      |      | +    |      |      |       |       |       | +     |       |       |   |
| EC 19 |      |      |      |      | +    |      |      |      |      |       |       |       | +     | +     |       |      |      | +    |      |      |      |      | +    |      |       |       |       | +     |       |       |   |
| EC 20 |      |      |      | +    | +    |      |      |      |      |       |       |       |       |       |       | +    |      |      |      |      |      | +    |      |      |       |       |       | +     |       |       |   |
| EC 21 |      |      |      |      | +    |      |      |      |      |       |       |       |       |       |       | +    |      |      | +    |      |      |      |      |      |       |       |       | +     |       |       |   |
| EC 22 |      |      |      |      | +    |      |      |      |      |       |       |       |       |       |       | +    | +    | +    |      |      |      |      |      |      |       |       |       | +     |       | +     |   |
| EC 23 |      |      |      | +    |      |      |      |      |      |       |       |       |       |       |       |      |      | +    |      |      |      | +    | +    |      |       | +     |       |       |       | +     |   |
| EC 24 | +    |      |      |      |      |      |      |      |      |       |       |       |       |       |       |      |      |      |      |      |      | +    |      |      |       |       |       | +     |       | +     |   |
| EC 25 |      |      |      | +    | +    |      |      |      |      |       |       |       |       |       |       | +    |      |      |      |      |      |      |      |      |       |       |       |       |       |       |   |
| EC 26 |      |      |      |      | +    |      |      |      |      | +     | +     |       |       |       |       |      |      |      | +    |      |      |      | +    |      |       |       |       |       |       |       |   |
| EC 27 |      |      |      | +    |      |      |      |      |      | +     | +     |       |       |       |       |      |      | +    |      |      |      |      | +    | +    | +     |       |       |       | +     |       |   |
| EC 28 |      |      |      | +    |      |      |      |      |      | +     | +     |       |       |       |       |      |      | +    |      |      |      |      | +    | +    | +     |       |       |       |       |       |   |
| EC 29 |      |      | +    | +    |      |      |      |      |      |       | +     |       |       |       |       |      | +    | +    |      |      |      | +    |      |      |       |       |       | +     |       |       |   |
| EC 30 |      |      |      | +    | +    |      |      | +    |      | +     | +     |       |       |       | +     |      |      | +    |      |      |      | +    | +    |      |       |       |       |       |       |       |   |
| EC 31 |      |      | +    |      | +    |      |      | +    | +    |       |       | +     |       |       |       |      |      |      | +    |      | +    |      |      |      | +     | +     |       |       | +     |       |   |
| EC 32 |      |      | +    | +    |      |      |      |      |      | +     |       | +     | +     | +     |       |      |      |      |      |      |      | +    |      |      | +     | +     | +     | +     |       | +     | + |
| EC 33 |      |      | +    | +    |      |      |      | +    | +    |       |       |       | +     | +     |       |      |      |      | +    |      |      | +    |      |      |       | +     |       |       |       |       |   |
| EC 34 |      |      |      | +    |      | +    |      |      |      | +     |       |       |       |       |       | +    | +    |      | +    |      |      |      | +    |      |       |       |       | +     |       |       |   |
| EC 35 |      |      |      | +    |      | +    |      |      |      | +     |       |       |       |       |       | +    | +    |      | +    |      |      |      | +    |      |       |       |       | +     |       |       |   |
| EC 36 |      |      | +    | +    | +    | +    |      | +    | +    | +     |       | +     |       |       |       | +    | +    | +    | +    |      |      | +    |      |      |       |       |       | +     |       |       |   |

## 5. Matrix for providing program learning outcomes with relevant components of the educational-professional program

| ШИФР  | PRLO1 | PRLO2 | PRLO3 | PRLO4 | PRLO5 | PRLO6 | PRLO7 | PRLO8 | PRLO9 | PRLO10 | PRLO11 | PRLO12 | PRLO13 | PRLO14 | PRLO15 | PRLO16 | PRLO17 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| EC 1  |       |       |       |       |       |       |       |       |       |        |        | +      |        |        |        |        |        |
| EC 2  |       |       |       |       |       |       |       |       |       |        |        | +      |        |        |        |        |        |
| EC 3  | +     |       | +     |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| EC 4  |       |       | +     | +     |       |       |       |       |       |        |        |        |        |        |        |        |        |
| EC 5  |       |       |       |       |       |       |       |       |       |        |        | +      |        |        |        |        |        |
| EC 6  |       |       |       |       |       |       | +     |       |       |        |        |        |        |        | +      |        |        |
| EC 7  |       |       |       | +     |       |       |       |       |       |        |        |        |        |        |        | +      |        |
| EC 8  |       | +     |       |       | +     |       |       | +     |       |        |        |        | +      |        |        |        |        |
| EC 9  |       |       |       |       |       |       | +     |       |       |        |        |        |        |        | +      |        |        |
| EC 10 |       |       |       |       |       | +     |       | +     |       |        |        |        |        |        | +      |        |        |
| EC 11 |       |       |       |       | +     | +     | +     |       |       |        |        |        |        |        |        |        |        |
| EC 12 |       | +     |       |       | +     |       | +     |       | +     | +      |        |        |        |        |        |        |        |
| EC 13 |       |       |       |       | +     | +     | +     |       |       |        |        |        |        |        |        |        |        |
| EC 14 |       |       |       |       | +     | +     | +     |       |       |        |        |        |        |        |        |        |        |
| EC 15 |       | +     |       |       | +     | +     |       | +     | +     | +      |        |        |        |        |        |        | +      |
| EC 16 |       |       |       |       | +     | +     | +     |       |       |        |        |        |        | +      |        |        |        |
| EC 17 |       |       |       |       | +     | +     | +     |       |       |        |        |        |        |        |        |        |        |
| EC 18 | +     |       |       |       |       |       |       |       |       |        |        |        |        |        | +      |        |        |
| EC 19 |       |       |       |       | +     | +     |       |       |       |        |        |        |        | +      |        |        |        |
| EC 20 |       |       |       |       |       |       |       |       | +     |        |        |        |        | +      | +      |        |        |
| EC 21 |       |       |       |       | +     | +     | +     |       |       |        |        |        |        |        | +      |        |        |
| EC 22 |       | +     | +     |       | +     |       |       |       | +     |        |        |        |        |        |        |        |        |
| EC 23 |       | +     |       |       | +     |       |       |       | +     |        |        |        |        |        |        |        |        |
| EC 24 | +     |       |       |       |       |       |       |       |       |        |        |        |        |        | +      |        |        |
| EC 25 |       |       |       |       | +     | +     | +     |       |       |        |        |        |        |        | +      |        |        |
| EC 26 |       |       |       |       |       |       |       |       | +     |        |        |        | +      | +      |        |        |        |
| EC 27 |       |       |       |       |       | +     |       |       | +     |        |        |        |        |        |        | +      |        |
| EC 28 |       |       |       |       |       | +     |       | +     | +     |        |        |        |        |        | +      | +      |        |
| EC 29 |       |       |       |       | +     | +     | +     |       |       |        |        |        | +      |        |        |        |        |
| EC 30 |       | +     |       |       | +     |       |       |       | +     | +      |        |        |        |        |        |        |        |
| EC 31 |       |       |       |       |       | +     |       | +     | +     | +      | +      |        |        |        |        | +      |        |
| EC 32 |       |       |       |       |       |       |       |       | +     | +      | +      |        |        |        |        |        | +      |
| EC 33 |       |       | +     |       | +     | +     |       | +     | +     |        |        | +      |        |        |        | +      | +      |
| EC 34 |       |       | +     | +     | +     | +     |       | +     |       |        |        | +      |        |        |        | +      | +      |
| EC 35 |       |       | +     | +     | +     | +     |       | +     |       |        |        | +      |        |        |        | +      | +      |
| EC 36 |       |       | +     | +     | +     | +     | +     | +     |       | +      |        | +      |        |        |        | +      | +      |