



**Project Management Institute n.a. E.A. Turkebayev  
Department of Management and Mathematical Economics**

**EDUCATIONAL PROGRAM  
7M04107 «Master of business administration by industries»**

Code and classification of the field of education: 7M04 Business, management and law

Code and classification of areas of study: 7M041 Business and management

Group of educational programs: **M072 «Management»**

NQF level: 7

SQF level: 7

Duration of study: 2 years

Credits: 120

**Almaty 2025**

NONCOMMERCIAL JOINT STOCK COMPANY "Kazakh National Research Technical University"  
named after K.I. Satbaev"

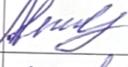
The educational program 7M04107 "Master of business administration by industries" was approved at meeting of the Academic Council of KazNRTU named after K.I. Satbayev.

Minutes N10 dated 06.03.2025

Considered and recommended for approval at a meeting of the Educational and Methodological Council of KazNRTU named after K.I. Satbayev.

Minutes N 3 dated 20.12.2024

Educational program 7M04107 "Master of business administration by industries" was developed by the academic committee in the direction 7M041 Business and management

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## **Content**

- List of abbreviations and symbols
- 1. Description of the educational program
- 2. Purpose and objectives of the educational program
- 3. Requirements for evaluating the learning outcomes of an educational program
- 4. Passport of the educational program
  - 4.1. General information
  - 4.2. The relationship between the attainability of the formed learning outcomes in the educational program and academic disciplines
- 5. Curriculum of the educational program

### **List of abbreviations and symbols**

**NJSC "Kazakh National Research Technical University named after K.I. Satpayev"**- NAO KazNITU named after K.I. Satpaev

**OP** – educational programm

**OC** -optional component

**NKF** -national qualifications framework

**SKF**- sectoral qualifications framework

**LO** -learning outcomes

**SDG** – sustainable development goal

**EP** – educational program

**IT** – information technology

**M&ME** – Management and mathematical economics

## **1. Description of the educational program**

The "MBA by Industries" educational program is designed for professionals seeking to develop management skills in specific fields: architecture and construction, transportation, logistics, oil and gas geology, and educational management. The program offers comprehensive training in key aspects of business management and discipline-specific trajectories within the context of each industry. Students gain the opportunity to study best management practices, analyze real-world cases, and develop management solutions and strategies tailored to the specific needs and characteristics of specific industries. The program is designed to develop the competencies necessary for successfully leading and managing projects, teams, and organizations in a changing economic environment.

## **2. Purpose and Objectives of the Educational Program**

### **Goal of the educational program:**

Preparing specialists with modern knowledge and skills in business management, capable of effectively managing business processes and human assets, developing and implementing strategies, as well as introducing innovative solutions in fields such as architecture and construction, transport and logistics, energy, geology, oil and gas, and management in education.

### **EP objectives:**

1. Enhance professional competence in management, finance, marketing, and operations management with a focus on the specifics of the chosen industry.
2. Acquire knowledge in accordance with the SDGs and inclusive learning, as well as their practical application in the management of economic sectors.
3. Develop analytical skills for assessing economic, social, and technological changes in the industry and determining their impact on organizational operations.
4. Develop strategic thinking and the ability to develop effective strategies and management decisions adapted to specific industry challenges.
5. Strengthen leadership and team skills necessary for leading and developing teams capable of innovation and high productivity.
6. Master practical project and process management tools in their industry, including the use of modern information technology and data methods to improve business performance.
7. Develop the ability to critically evaluate and make decisions under conditions of uncertainty and risk, as well as manage change within the organization and the industry as a whole.

### 3. Requirements for evaluating the learning outcomes of an educational program

The educational program is developed in accordance with the State Compulsory Standards for Higher and Postgraduate Education, approved by Order No. 2 of the Minister of Science and Higher Education of the Republic of Kazakhstan dated July 20, 2022 (registered in the Register of State Registration of Regulatory Legal Acts under No. 28916). It reflects learning outcomes, which are used to develop curricula (working curricula, individual student curricula) and working curricula for disciplines (syllabuses).

Learning outcomes are assessed using developed test assignments within the educational program in accordance with the requirements of the State Compulsory Standard for Higher and Postgraduate Education.

When assessing learning outcomes, students are provided with uniform conditions and equal opportunities to demonstrate their level of knowledge, skills, and abilities.

Online proctoring is used for online midterm assessments.

### 4. Passport of the educational program

#### 4.1. General information

№	Field name	Note
1	Code and classification of the field of education	7M04 Business, management and law
2	Code and classification of areas of study	7M041 Business and management
3	Group of educational programs	M072 «Management»
4	Name of the educational program	7M04107 «Master of business administration by industries»
5	Brief description of the educational program	The "MBA by Industries" educational program is designed for professionals seeking to develop management skills in specific fields: architecture and construction, transportation, logistics, oil and gas geology, and educational management. The program offers comprehensive training in key aspects of business management and discipline-specific trajectories within the context of each industry. Students gain the opportunity to study best management practices, analyze real-world cases, and develop management solutions and strategies tailored to the specific needs and characteristics of specific industries. The program is designed to develop the competencies necessary for successfully leading and managing projects, teams, and organizations in a changing economic environment.
6	EP purpose	Preparing specialists with modern knowledge and skills in

		business management, capable of effectively managing business processes and human assets, developing and implementing strategies, as well as introducing innovative solutions in fields such as architecture and construction, transport and logistics, energy, geology, oil and gas, and management in education.
7	Type of EP	Innovative EP
8	NQF level	7
9	SQF level	7
10	Distinctive features of the EP	No
11	List of competencies of the educational program:	<p>K1. Strategic Planning and Thinking: Ability to develop long-term strategies, taking into account global trends, industry specifics, and the organization's specific goals.</p> <p>K2. Analytical Skills: Ability to analyze large volumes of information, including financial data, market trends, and operational indicators, to substantiate decisions and assess risks.</p> <p>K3. Financial Management: Knowledge of financial analysis, budgeting, investment planning, and capital management methods within the industry context.</p> <p>K4. Marketing and Customer Relationship Management: Development and implementation of marketing strategies aimed at satisfying customer needs and increasing the competitiveness of products/services.</p> <p>K5. Operations Management: Optimization of business processes to improve efficiency and quality, supply chain and logistics management.</p> <p>K6. Human Resource Management and Leadership: Development of skills in recruiting, motivating, training, and developing personnel, as well as leadership qualities for effective team management.</p> <p>K7. Project Management: Application of modern methods and tools for planning, implementing, and monitoring projects, including those using information technology.</p> <p>K8. Legal Aspects of Business: Understanding the legal foundations of doing business, including corporate, tax, and labor law, as well as industry-specific regulations.</p> <p>K9. Ethics and Social Responsibility: Understanding ethical standards in business and the social responsibility strategy of organizations as part of their corporate culture.</p> <p>K10. Digitalization and Technological Innovation: Knowledge and application of digital technologies, including Big Data, artificial intelligence, blockchain, and other innovative solutions in business management and development.</p>

12	Learning outcomes of the educational program:	<p><b>LO1.</b> Analyze and develop comprehensive strategies to achieve long-term organizational goals by integrating modern theories and practices of strategic management..</p> <p><b>LO2.</b> Optimize operational processes through diagnostics and business process reengineering, enhancing organizational efficiency and productivity.</p> <p><b>LO3.</b> Conduct in-depth financial analysis and project evaluation using modern methodologies to make informed investment decisions..</p> <p><b>LO4.</b> Perform business analysis to identify opportunities and threats using advanced tools and methods.</p> <p><b>LO5.</b> Develop and implement innovative solutions for the modernization of transport infrastructure, taking into account the specific requirements of various modes of transport.</p> <p><b>LO6.</b> Analyze and forecast transport flows using modern modeling and forecasting methods to optimize logistics processes.</p> <p><b>LO7.</b> Develop and implement marketing strategies based on in-depth market analysis and consumer behavior, using the latest marketing concepts and tools.</p> <p><b>LO8.</b> Effectively manage human resources, developing personnel potential and creating conditions for employee professional growth.</p> <p><b>LO9.</b> Apply legal norms and regulations in the field of urban planning and public administration, ensuring compliance with legislative requirements and standards.</p> <p><b>LO10.</b> Evaluate and forecast oil and gas resources using modern geological and geochemical methods to develop effective extraction strategies.</p> <p><b>LO11.</b> Apply theories of automated electric drive and electromechanical energy conversion for the creation and optimization of energy systems.</p> <p><b>LO12.</b> Develop sustainable architectural and urban planning projects taking into account environmental and social aspects, applying modern concepts of sustainable development.</p> <p><b>LO13.</b> Develop management and personal growth skills to enhance leadership effectiveness and achieve organizational goals..</p> <p><b>LO14.</b> Apply effective communication and negotiation strategies in management to achieve set goals and improve organizational culture.</p> <p><b>LO15.</b> Develop and manage supply chains to enhance efficiency and reduce costs in the organization.</p>
13	Form of study	Full-time
14	Training period	2 years
15	Quantity of credits	120

16	Languages of instruction	English, Kazakh, Russian
17	Awarded Academic Degree	Master of Business Administration
18	Developer(s) and authors:	Turegeldinova A.Zh., Tsekhovoy A.F., Salina A.P., Kamysbaev M.K

#### 4.2. The relationship between the achievability of the formed learning outcomes in the educational program and academic disciplines

№	Name of the discipline	Brief description of the discipline	Number of credits	Formed learning outcomes (codes)														
				LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14	LO15
<b>Cycle of basic disciplines Compulsory component</b>																		
1	Business research	Purpose: To develop graduate students' knowledge and skills in conducting business research for making informed managerial decisions. Content: Graduate students will study methods and tools of business research, including data collection and analysis, developing research hypotheses, applying qualitative and quantitative methods, and interpreting results.	3				V											
2	Strategic management	Purpose: To develop graduate students' knowledge and skills in strategic management for effective long-term decision-making and organizational development. Content: Graduate students will study key concepts and methods of strategic analysis, strategy formulation, and implementation. Topics include external and internal environment analysis, competitive advantages, strategic planning, and change management.	3	V														
<b>Cycle of basic disciplines Elective component</b>																		
3	Actual problems of geology	Purpose: study the formation, structure and composition of the Earth, as well as key geological processes. Objectives: study of the concept of "geological	5										V					







№	Name of the discipline	Brief description of the discipline	Number of credits	Formed learning outcomes (codes)													
				LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14
		Graduate students will study normative legal acts, the essence and content of legal regulation in the field of SUG, the system, structure, and types of activities of executive authorities and local self-government, and the mechanism of administrative-legal regulation of SUG. The course will also cover the algorithm for searching and forming a set of legal acts reflecting the legal status of a specific SUG body.															
11	Advanced Statistics Course	Purpose: To develop graduate students' advanced knowledge and skills in applying statistical methods for complex data analysis. Content: Graduate students will study advanced statistical analysis methods, including multivariate analysis, regression models, time series, and machine learning methods.	5						V								
12	The theory of automated electric drive	Purpose: To develop graduate students' knowledge and skills in the theory of automated electric drives for effective design and management of electric drive systems. Content: Graduate students will study the basic principles and methods of automated electric drives, modeling and analysis of electric drive systems, control and regulation methods, automatic control systems, diagnostics, and condition monitoring.	5										V				
13	The theory of electromechanical energy conversion	Purpose: To develop graduate students' knowledge and skills in the theory of electromechanical energy conversion for effective design and operation of	5										V				

№	Name of the discipline	Brief description of the discipline	Number of credits	Formed learning outcomes (codes)														
				LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14	LO15
		electrical machines and devices. Content: Graduate students will study the principles and methods of electromechanical energy conversion, types of electrical machines and their characteristics, processes in electromagnetic systems, theory of electromagnetic fields, methods of analysis and calculation of electrical machines.																
14	Advanced Excel	Purpose: To develop advanced skills in using Microsoft Excel for effective data analysis and process automation. Content: Graduate students will learn advanced Excel functions and formulas, macros, VBA programming, data visualization methods, and creating pivot tables and reports.	5			V	V											
<b>Cycle of major disciplines University's component</b>																		
15	Creative Management	Purpose: To develop graduate students' knowledge and skills in creative management to foster innovation and creative thinking in the organization. Content: Graduate students will study theories and methods of creative thinking, techniques for idea generation, innovation project management, creating a creative culture in the team, and strategic development of creative processes. The program includes practical assignments and case studies on applying creative methods in management.	4															V
16	Motivational	Purpose: To develop graduate students'	5								V							



№	Name of the discipline	Brief description of the discipline	Number of credits	Formed learning outcomes (codes)															
				LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14	LO15	
		management. The program also includes discussing real-life scenarios and developing practical skills for applying emotional intelligence in professional activities.															V	V	
<b>Cycle of major disciplines</b>																			
<b>Elective component</b>																			
19	ASDC and optimization of the modes of power supply systems	Purpose: To equip graduate students with skills in automated dispatch control systems (ADCS) and methods for optimizing power system modes to enhance their efficiency and reliability. Content: Graduate students will learn how the "brain" of power systems - ADCS - manages energy flows, study optimization methods for setting ideal power system modes, and master data analysis and load forecasting, along with managing energy generation and distribution. The course includes SCADA technologies and practical assignments for implementing ADCS and optimizing power systems.	5														V		
20	Business analysis	Purpose: To develop graduate students' knowledge and skills in business analysis for making informed decisions and improving business processes. Content: Graduate students will study methods for data collection and analysis, business process modeling, business requirements development, and risk assessment and management. Practical assignments include applying business analysis tools to solve real business problems.	5				V												
21	High-voltage electrical	Purpose: To prepare graduate students for	5														V		



№	Name of the discipline	Brief description of the discipline	Number of credits	Formed learning outcomes (codes)														
				LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14	LO15
		identifying bottlenecks and improvement opportunities, developing and implementing new processes, and using information technology for optimization.																
24	Historical heritage and protection of monuments of material culture	Purpose: To develop knowledge of historical heritage and the preservation of monuments of material culture. Brief Description: Graduate students will study the theoretical and methodological aspects of cultural and natural heritage as objects of study and protection, the experience of studying and preserving architectural and urban monuments, modern legislation on the protection of material culture monuments, and international normative documents on the protection of cultural and natural heritage abroad. Reconstructive and restoration activities in historical quarters, streets, and squares, as well as the adaptation of architectural monuments, will be covered.	5												V			
25	History and theory of urban planning	The purpose of the discipline: the formation of knowledge of the theory and history of urban planning, the nature of the research tasks facing designers and researchers. Brief description: The history of settlements as a form of evolution of being, consciousness, civilization. Urban planning of the countries of the ancient world. Urban planning of the Middle Ages. Urban planning of the Renaissance. Prospects for the development of urban planning science. Theories of urban planning of the future. Planning structure	5												V			

№	Name of the discipline	Brief description of the discipline	Number of credits	Formed learning outcomes (codes)														
				LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14	LO15
		and development.																
26	Communication Management	Purpose: To develop graduate students' knowledge and skills in communication management for effectively managing an organization's internal and external communications. Content: Graduate students will study communication theories and models, methods and tools of communication management, strategic communication planning, crisis communication management, and technologies and platforms for digital communications. The program also includes analyzing case studies and developing communication strategies for various business scenarios.	3														V	
27	Marketing of an educational organization	Purpose: To develop graduate students' knowledge and skills in the marketing of educational organizations to attract students and enhance their competitiveness. Content: Graduate students will study methods for analyzing the educational market, developing marketing strategies, promoting educational services, brand management, and engaging with target audiences. Cases of successful marketing in the educational field are included.	5								V							
28	Marketing Strategies	Purpose: To develop graduate students' knowledge and skills in designing and implementing effective marketing strategies to achieve business goals. Content: Graduate students will study market and target audience analysis,	5								V							





№	Name of the discipline	Brief description of the discipline	Number of credits	Formed learning outcomes (codes)														
				LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14	LO15
		concepts of sustainable development in the fields of architecture and urban planning. Principles of designing environmentally oriented energy-efficient buildings and structures according to the criteria of sustainable development. The main provisions of the concept of "green economy" and "green urban planning". Patterns of interaction of buildings with the natural environment, methods of environmental protection. Design based on environmentally oriented energy-efficient solutions according to the criteria of sustainable development. Inclusion in design solutions: creating a barrier-free, accessible environment and universal design.													V			
35	Prediction and assessment of oil and gas resources	The purpose of the course: scientifically based forecast of oil and gas content of the subsoil, methods for estimating resources at the regional stage of geological exploration. Course content: skills in collecting documentation, analyzing and summarizing geological and geophysical, geochemical, hydrogeological and other materials of regional and detailed geological exploration for the purpose of a scientifically based forecast of oil and gas content of the subsoil; choosing the optimal directions for prospecting and exploration of hydrocarbon accumulations, designing oil and gas prospecting, assessing oil and gas resources and substantiating the technical and economic feasibility of setting up	5											V				

№	Name of the discipline	Brief description of the discipline	Number of credits	Formed learning outcomes (codes)														
				LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14	LO15
		prospecting and exploration work.																
36	Project Management	Goal: Gaining knowledge about the components and methods of project management based on modern models and standards. Objectives: study of behavioral models of project-oriented management of business development; mastering international standards PMI PMBOK, IPMA ICB and national standards of the Republic of Kazakhstan in the field of project management; analysis of the features of organizational management of business development through the integration of strategic, project and operational management.	5	V														
37	Development of transit-transport potential of the Republic of Kazakhstan	Objective: to acquire professional knowledge and skills to analyse and develop proposals to improve the efficiency of transit-transport potential on the basis of modern methods and approaches. Content: State of transport infrastructure of Kazakhstan. Transport corridors and transit routes in Kazakhstan. Prospects of development of Trans-Caspian international transport route. Normative legal support of international transportations. Innovative technologies in the organisation of intermodal cargo transportation in international traffic.	5					V										
38	Renovation and revitalization of urban areas	The purpose of the discipline: the formation of knowledge about the renovation and revitalization of urban areas. Short description: Urban planning analysis. Identification of reserves of the	5											V				

№	Name of the discipline	Brief description of the discipline	Number of credits	Formed learning outcomes (codes)														
				LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14	LO15
		territory, economic resources. Creating a modern, comfortable urban environment. Methods of renovation and revitalization, i.e. renovation by using various methods of reconstruction. Replacement of obsolete forms and spatial systems. Social adaptation of territories to new conditions.																
39	Modern high voltage equipments	Purpose: To prepare graduate students for effective work with modern high-voltage equipment, ensuring the reliability and safety of electrical systems. Content: During the course, graduate students will gain basic knowledge about the calculation of electric fields, the nature of dielectric breakdown, the design features of high-voltage insulation, the mechanisms of defect formation in insulation and methods for its control, as well as overvoltages and methods for their protection.	5											V				
40	Environmental aspects of urban planning design	The purpose of the discipline: the formation of a systematic understanding of the methods, techniques and means of urban planning design of public spaces in residential buildings. Brief description: The structure of the city, "frame and fabric". Typology of development. A block as an element of residential development. Urban planning analysis of the territory. Development of the system of public spaces. Volumetric and spatial regulations. Graphical analysis of the landscape organization of the territory and spatially differentiated assessment of the	5											V				









№	Name of the discipline	Brief description of the discipline	Number of credits	Formed learning outcomes (codes)													
				LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14
		and project evaluation for making informed investment decisions. Content: Graduate students will study methods of financial analysis, investment project evaluation, cash flow analysis, risk assessment, and determining the cost of capital. Practical assignments include conducting financial analysis and evaluating real projects.															
52	Financial management of educational organizations	The goal is to master the principles and methods of financial management in the field of education, develop skills in analyzing and planning the financial resources of educational institutions. Contents: the course covers key aspects of financial management in educational organizations, including budget formation and management, analysis of financial statements, education financing mechanisms, evaluation of investment projects in education and risk management.	5			V											
53	Digital control systems of electric drives	Purpose: To develop graduate students' knowledge and skills in digital control systems for electric drives for their effective design, implementation, and operation. Content: Graduate students will study the fundamentals of digital control, the architecture and components of digital control systems, control algorithms for electric drives, methods for analysis and synthesis of control systems, microprocessors, and programmable logic controllers.	5										V				





