

ALIKHAN BOKEIKHAN UNIVERSITY

**MODULAR EDUCATIONAL PROGRAM**  
**8D04105 Economics**

Semey, 2022 years.

Developed by the Department of Business and Management

Considered at the meeting of the department

Protocol no. 9 from «13» 04 2022 year

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## **1. Explanatory note**

The modular educational program (MEP) is compiled on the basis of regulatory documents of the Ministry of Education and Science of the Republic of Kazakhstan and internal regulatory documents of Alikhan Bokeikhan University.

Regulatory documents of the Republic of Kazakhstan:

- The Law of the Republic of Kazakhstan «On Education» dated 27.07.2007 (with additions and amendments);
- The State mandatory standard of postgraduate education of the Republic of Kazakhstan, approved by Order No. 2 of the Minister of Science and Higher Education of the Republic of Kazakhstan dated 20.07.2022.;
- Rules for the organization of the educational process on credit technology of education, approved by the Order of the Minister of Education and Science of the Republic of Kazakhstan dated 20.04.2011 No. 152 (with additions and amendments);
- Standard rules of activity of educational organizations implementing educational programs of higher and postgraduate education, approved by the Order of the Minister of Education and Science of the Republic of Kazakhstan dated 30.10.2018 No. 595 (with additions and changes).

Internal regulatory documents of the Educational Institution Alikhan Bokeikhan University:

- Structure of the modular educational program, revision No. 3 of 08.10.2021;
- Item 02.04/2020 «Regulations on the research work of doctoral students».

The MOS is designed as a set of sequential training modules for the entire period of study and is aimed at mastering the competencies necessary for awarding the degree of Doctor of Philosophy PhD in the educational program «8D04105 Economics».

The modules of the block of basic disciplines (BD) include disciplines of the university component (UC) - 20 credits, including pedagogical practice – 10 credits; elective components (CC) - 5 credits. Modules of these disciplines form a set of competencies: training of a highly qualified economist - Doctor of philosophy, ready for teaching, scientific and methodological, socio-pedagogical activities, having the necessary knowledge in the field of methodological foundations of scientific research in economics, teaching disciplines of the specialty, able to analyze source materials and draw conclusions.

The block of profile disciplines (MD) includes disciplines of the university component (UC) - 15 credits; elective components (CC) - 5 credits. Modules of these disciplines allow forming a complex of key and special competencies acquired by graduates: training personnel for creative, active, professional and social activities, high-quality performance of practical tasks in production; generalization and adaptation of positive foreign experience to domestic conditions; obtaining theoretical knowledge to solve practical problems and problems in production.

The research practice of doctoral students includes 10 credits.

Research work of doctoral students, including internships and doctoral dissertation - 123 credits.

Final certification – 12 credits (writing and defending a doctoral dissertation).

The criterion for the completion of the educational process for the preparation of doctors of philosophy (PhD) is the development of at least 180 academic credits by a doctoral student, including all types of educational and scientific activities. The MEP consists of 4 modules, including all types of training (all practices and research) and final certification.

During the development of the modular educational program, the wishes and recommendations of potential employers were taken into account, aimed at the formation of additional professional competencies that meet the requirements of the labor market (round table with employers «Interaction of the university with social partners as a condition for high-quality training of graduates» from 02/18/12).

Social partners who took part in the discussion of the MEP: Zhursymbaeva A.B., Director of the Semey branch of the Chamber of Entrepreneurs of East Kazakhstan Region; Baiterekova G.E. Director of the Semey Regional branch of Halyk Bank of Kazakhstan JSC; Nauryzbayeva S.S. Director of the Semey Branch of Fortebank JSC; Abylkasimova Z. A., PhD, Acting Associate Professor of the Department of Economics and Finance of Humanitarian and Economic Faculty of the NAO «Shakarim University of Semey» and others.

General field of activity: state bodies, organizations and institutions of all types of property, research institutes and institutions, public administration bodies of market infrastructures. Objects of professional activity: republican and local state bodies, property objects, enterprises by type of services – production and economic, marketing, financial, monitoring and expert institutions, research institutes, primary professional, secondary and higher professional educational institutions, organizations of higher and postgraduate education (IHPE).

According to the educational program 8D04105 Economics, graduates can perform the following types of professional activities:

- educational: to teach economic and managerial disciplines in the organization of higher and postgraduate education and other educational institutions of the profile;
- scientific: conduct research and development, carry out design and survey work, scientific and organizational activities in various fields of economics and in various financial institutions;
- production: to carry out organizational and technological activities in production institutions of the real sector of the economy and organizations for planning, preparation of investment, innovation and environmental management procedures; conducting foreign economic activity at enterprises and organizations.

The purpose of the modular educational program is to prepare PhD doctors of international level for scientific and pedagogical work in the field of developing theoretical and methodological provisions for the analysis of economic processes and systems, as well as professional activities related to the application and improvement of methods of modeling and forecasting economic and production processes in an innovative economy.

Expected results of the modular educational program 8D04105 Economics:

ON 1 He is able to compare promising areas of scientific research in the subject area of professional activity, determine the composition of research papers, divide the structure and stages of research, criticize targeted programs of scientific and practical activities, apply empirical methods for conducting qualitative research, characterize the mechanism of economic growth and make its models.

ON 2 To form the skills of written and oral speech activity in the scientific field, understanding scientific speech and reading scientific literature, to identify and correlate with the latest achievements of science modern methods and methods of scientific research, to possess the skills of processing and interpreting the results of the experiment

ON 3 He is able to analyze pedagogical technologies to select the most optimal ones in the process of teaching economic disciplines and implementing pedagogical tasks.

ON 4 He is able to recommend the structure and stages of research, in order to critically analyze the problem of research and apply the knowledge gained in scientific activity.

ON 5 Generalize the results of information sources, develop methodological foundations of applied research. Choose analytical tools, distinguish empirical research methods.

ON 6 He is able to organize and implement the process of scientific research, formalizing the results of scientific activity for entering them into databases.

ON 7 He is able to determine the structure of the article and prepare it for publication, including having skills in working with scientometric databases and their applications, such as Web of Science and Scopus.

ON 8 He is able to design and carry out complex research based on economic and mathematical modeling, as well as independently develop mathematical models of economic processes using computer modeling and implement them.

ON 9 He is able to choose methods of scientific research, types of planning and management of scientific research in innovative activities in economic sectors. Draw conclusions based on the results of the application of empirical research methods.

ON 10 He is able to navigate modern business models of economics and management, determine the directions of their use. Able to be competent in choosing the algorithm and structure of the business model., predict future trends

In order to create special conditions for people with special educational needs to receive education, the graduate's competence model is supplemented with professional competencies that ensure the adaptive nature of the main educational program. To this end, courses for the formation of the ability of persons with special educational needs to successfully socialize in society and actively adapt to the labor market, taking into account the characteristics of the disease, are introduced into the catalog of courses of the additional educational program «Minor».

## **2 The graduate's competence model**

The learning outcomes are determined on the basis of Dublin descriptors of the third level (doctorate) are expressed through competencies.

The third-level descriptors within the Comprehensive Qualifications Framework of the European Higher Education Area reflect the learning outcomes that characterize the student's abilities:

- 1) demonstrate a systematic understanding of the field of study, mastering the skills and research methods used in this field;
- 2) demonstrate the ability to think, design, implement and adapt an essential research process with a scientific approach;
- 3) to contribute with their own original research to the expansion of the boundaries of the scientific field, which deserves publication at the national or international level;
- 4) critically analyze, evaluate and synthesize new and complex ideas;
- 5) communicate your knowledge and achievements to colleagues, the scientific community and the general public;
- 6) to promote knowledge-based technological, social or cultural development of society in the academic and professional context.

After mastering the EP «8D04105 Economics», the doctoral student will be able to possess special and research competencies.

### **Special competencies**

Upon completion of the study of the discipline, the student will be able to:

- He is able to analyze pedagogical technologies to select the most optimal ones in the process of teaching economic disciplines and implementing pedagogical tasks.
- He is able to design and carry out complex research based on economic and mathematical modeling, as well as independently develop mathematical models of economic processes using computer modeling and implement them.
- Is able to recommend the structure and stages of research, in order to critically analyze the problem of research and apply the knowledge gained in scientific activity.
- Is able to organize and implement the process of scientific research, formalizing the results of scientific activity for entering them into databases.
- He is able to navigate modern business models of economics and management, determine the directions of their use. Able to be competent in choosing the algorithm and structure of the business model, predict future trends.

### **Research competencies**

Upon completion of the study of the discipline, the student will be able to:

- He is able to compare promising areas of scientific research in the subject area of professional activity, determine the composition of research papers, divide the structure and stages of research, criticize targeted programs of scientific and practical activities, apply empirical methods for conducting qualitative research, characterize the mechanism of economic growth and make its models.
- He is able to choose methods of scientific research, types of planning and management of scientific research in innovation activities in economic sectors. Draw conclusions based on the results of the application of empirical research methods.

- To form the skills of written and oral speech activity in the scientific field, understanding scientific speech and reading scientific literature, to identify and correlate modern methods and methods of scientific research with the latest achievements of science, to possess the skills of processing and interpreting the results of the experiment.
- Generalize the results of information sources, develop methodological foundations of applied research. Choose analytical tools, distinguish empirical research methods.
- He is able to determine the structure of the article and prepare it for publication, including the skills to work with scientometric database and their applications, such as Web of Science and Scopus.

**Table 1. The sequence of mastering disciplines in the process of forming special competencies**

№	Competencies	The list of elective disciplines and the sequence of their study		Expected results
		list of disciplines	the sequence of their study (sem.)	
1	Special	Scientometrics	1	<p>To know: forms and methods of organizing resource and information bases; scientific databases for searching and analyzing information on their scientific problem, publishing their own articles in order to inform the scientific community and increase publication activity; promising directions in the development of educational systems and state policy in the field of education; basic concepts: scientometry, scientific citation index, Hirsch index, impact factor, etc.;</p> <p>Be able to: recommend the structure and stages of research, in order to critically analyze the research problem and apply the knowledge gained in scientific activity; summarize the results of information sources, develop methodological foundations of applied research, choose analytical tools, distinguish empirical research methods.</p> <p>Skills: has the skills to determine the structure of the article and prepare it for publication, including the skills to work with a scientometric database and their applications, such as Web of Science and Scopus; to design and carry out comprehensive research based on economic and mathematical modeling, as well as independently develop mathematical models of economic processes using computer modeling and implement them; scientometric methods of analysis of publication activity; methods and means of diagnosing the current state of educational practice and professional competence of its subjects.</p>

2	Special	Economic and mathematical modeling of business processes	1	<p>To know: principles of construction, characteristic features, factors of choice and transformation of business models of companies in management strategies; fundamentals of the evolution of business models, classification criteria; models of relations between management and owners, criteria for choosing rational strategies and tactics, their interaction; tools for the development and implementation of public-corporate partnership projects in the commercial sphere; basic approaches to the development of strategies and tactics of commercial organizations.</p> <p>Be able to: establish a link between the business model and the company's strategy; apply various tools and procedures for identifying the business model used; understand the specifics of the formation of business models in commercial structures; apply tools for building integrated corporate structures; organize and implement the process of scientific research, formalizing the results of scientific activities for entering them into databases; determine the structure of the article and prepare it for publication, including having the skills to work with a scientometric database and their applications, such as Web of Science and Scopus; make strategic decisions concerning the development of corporate entities, including participation in public-corporate partnership projects, including in relation to the commercial sphere.</p> <p>Skills: design and carry out comprehensive research based on economic and mathematical modeling, as well as independently develop mathematical models of economic processes using computer modeling and implement them; navigate modern business models of economics and management, determine the directions of their use; be competent when choosing the algorithm and structure of the business model, predict future trends.</p>
		Key concepts of modern management		<p>To know: knowledge systems about management, information management and the theory of quality management; about modern management methods and their application in management activities; about the principles and methods of information resource management.</p> <p>Be able to: identify effective relationships between individual elements of the information flow process and create conditions for improving the competitiveness of products and the enterprise as a whole.</p> <p>Skills: design and carry out comprehensive research based on economic and mathematical modeling, as well as independently develop mathematical models of economic processes using computer modeling and implement them; skills in using</p>

				improvement tools in practice; navigate modern business models of economics and management, determine the directions of their use; be competent when choosing an algorithm and business structure-models, predict future trends; independently organize the activities of the information system of the enterprise and solve issues related to the organization and management of the information process.
3	Special	Organization and methodology of teaching economic disciplines	2	<p>To know: theoretical foundations of the methodology of teaching economic disciplines; didactic foundations of the transformation of scientific information into educational, structuring and selection of the content of educational material.</p> <p>Be able to: ato rationalize pedagogical technologies for choosing the most optimal ones in the process of teaching economic disciplines and implementing pedagogical tasks; to generalize the results of information sources, develop methodological foundations of applied ones and be able to develop and conduct various classes in economic disciplines, using the most effective methods and techniques of teaching when studying relevant topics and sections.</p> <p>Skills: possess the basic methods of objective diagnostics and evaluation of economic knowledge; practical skills to activate the learning process, taking into account the peculiarities of studying and mastering economic information.</p>
		Empirical methods of international economics research		<p>To know: methodology and organization of empirical research.</p> <p>Be able to: generalize the results of information sources, develop methodological foundations of applied research. Choose analytical tools, distinguish empirical research methods; organize and implement the process of scientific research, formalizing the results of scientific activity for entering them into databases; apply empirical research methods in scientific work, collect and process primary data, transform them into a form suitable for analysis, including by means of information technologies and systems; determine the structure of the article and prepare it for publication, including having the skills to work with a scientometric database and their applications, such as Web of Science and Scopus.</p> <p>Skills: design and carry out comprehensive research based on economic and mathematical modeling, as well as independently develop mathematical models of economic processes using computer modeling and implement them.</p>

**Table 2. The sequence of mastering the disciplines of social and professional interaction**

Course	Providing disciplines	Competencies	Expected results
1	Methodology of economic research	Research competencies	<p>To know: о сущности методики проведения научных исследований; демонстрировать знания и понимание сущности и содержания методики организации и проведения научных исследований;</p> <p>Be able to: сравнивать перспективные направления научных исследований в предметной сфере профессиональной деятельности, определять состав исследовательских работ, разделять структуру и этапы исследовательских работ, критиковать целевые программы научно-практической деятельности, применять эмпирические методы для проведения качественных исследований, охарактеризовать механизм экономического роста и составлять его модели; применять знания концептуальных подходов к организации научных исследований в решении проблем эффективного использования существующих методик при проведении научных исследований;</p> <p>Skills: выбирать методы научных исследований, виды планирования и управления научными исследованиями в инновационной деятельности в отраслях экономики; делать выводы по результатам применения эмпирических методов исследований; ориентироваться в современных бизнес-моделях экономики и менеджмента, определять направления их использования; быть компетентным при выборе алгоритма и структуры бизнес-модели, прогнозировать будущие тренды.</p>
1	Methods of scientific research	Research competencies	<p>To know: on the functioning of the modern economy at the micro and macro levels; basic concepts, categories and tools of economic theory and applied economic disciplines; the basics of constructing, calculating and analyzing a modern system of indicators characterizing the activities of economic entities at the micro and macro levels; general characteristics of the processes of collecting, processing and accumulating information; the main features of the Kazakh economy, its institutional structure, directions of the state's economic policy.</p> <p>Be able to: analyze economic phenomena, processes and institutions at the micro level in their interrelation; identify problems of an economic nature when analyzing specific situations, propose ways to solve them taking into account criteria of socio-economic efficiency, risk assessment and possible socio-economic consequences; compare promising areas of scientific research in the subject area of professional activity, determine the composition of research papers, divide the structure and stages of research, criticize the target programs of scientific</p>

			<p>and practical activities, apply empirical methods for conducting qualitative research, characterize the mechanism of economic growth and make its models.</p> <p>Skills: modern methods of constructing econometric models; design and carry out complex research based on economic and mathematical modeling, as well as independently develop mathematical models of economic processes using computer modeling and implement them; choose research methods, types of planning and management of scientific research in innovation activities in economic sectors; draw conclusions based on the results of the application of empirical methods research.</p>
1	Academic writing	Research competencies	<p>To know: about the main purposes of analytical processing and analysis of texts on professional topics, stylistic features of the presentation of the results of scientific activity in oral and written form in the state and foreign languages; requirements for the content and rules for the design of manuscripts for publication in peer-reviewed scientific publications.</p> <p>Be able to: to form the skills of written and oral speech activity in the scientific field, understanding scientific speech and reading scientific literature, to identify and correlate with the latest achievements of science modern methods and techniques of scientific research, to possess the skills of processing and interpreting the results of the experiment; to analyze the text, search for information in reference, special publications and computer networks, stylistic analysis of scientific, scientific, technical and popular science texts; to analyze pedagogical technologies for choosing the most optimal ones in the process of teaching economic disciplines and implementing pedagogical tasks; to make a plan of an academic text; to work with library and Internet resources.</p> <p>Skills: generalize the results of information sources, develop methodological foundations for applied research; choose analytical tools, distinguish empirical research methods; work with problems of academic genres; critical reading and critical writing skills; citation and design of academic texts; critical evaluation of the effectiveness of various methods and technologies of scientific communication; determine the structure of the article and prepare it for publication, including has skills in working with scientometric databases and their applications, such as Web of Science and Scopus</p>
1	Pedagogical practice	Research competencies	<p>To know: principles of pedagogical work with students, as well as the academic policy of the university</p> <p>Be able to: plan training sessions taking into account the principles of integration and continuity of training; conduct standard training sessions (lectures, practice, IWST) using new learning technologies, including ICT for the development of pedagogical skills, skills and</p>

			<p>abilities of educational and teaching work; coordinate and monitor the work of students; develop training materials in accordance with the set goals of classes</p> <p>Skills: the skills of organizing collective work; the skills of oral and written presentation of the results obtained; the methodology of planning and research of the educational environment</p>
2	Research practice	Research competencies	<p>To know: patent and literary sources on the topic under development for the purpose of their use in the performance of final qualifying work; the state of the problem under study in theory and practice, methods of research and experimental work; rules of operation of devices and installations; methods of analysis and processing of experimental and expedition work; information technologies in scientific research, software products related to the professional sphere; principles of organization of computer networks and telecommunication systems; requirements for the design of scientific and technical documentation; the procedure for implementing the results of scientific research and development.</p> <p>Be able to: formulate the goals and objectives of scientific research; to select and justify the research methodology; to work with applied scientific packages and editorial programs used in research and development; to draw up the results of scientific research (preparation of a report, writing scientific articles, abstracts); to work on experimental installations, instruments and stands.</p> <p>Skills: analyze, systematize and summarize scientific information on the research topic; theoretical or experimental research within the framework of the tasks; analyze the reliability of the results obtained; compare the results of the research of the object of development with domestic and foreign analogues; analyze the scientific and practical significance of the research, as well as the technical and economic efficiency of the development; prepare a patent application or to participate in competition of scientific projects.</p>
1,2,3, 4,5,6	Research work of doctoral students	Research competencies	<p>To know: modern methods of scientific research.</p> <p>Be able to: conduct research based on modern theoretical, methodological and technological achievements of science and practice.</p> <p>Skills: the use of modern methods of data processing and interpretation with the use of computer technology</p>

### 3. The list of modules included in the educational program

Module №	Name of the module	The list of disciplines included in the module	Block	Term	Credit volume	Form of control	Total credits by module
M.1	Methodology of science	Methodology of economic research	BD UC	1	5	exam	7
		Methods of scientific research	BD UC	2	2	exam	
M.2	Methodology of teaching and research	Педагогическая практика	BD UC	1	10	practice report	15
		Organization and methodology of teaching economic disciplines/Empirical methods of international economics research	BD CC	2	5	exam	
M.3	Academic Writing and Research	Academic writing	BD UC	2	3	exam	13
		Research practice	MD UC	3	10	practice report	
M.4	Development of economic and scientific potential	Scientometrics	MD UC	1	5	exam	10
		Economic and mathematical modeling of business processes/ Key concepts of modern management	MD CC	1	5	exam	
		Research work of doctoral students, including internship and doctoral dissertation (SRWD)	SRWD	1,2,3,4,5,6	123	dif/c	123
	Final certification	Registration of doctoral dissertation	FA	6	12	DD	12
		Doctoral dissertation protection					12
		Total					180