



 announcement.title

 Registry of the EP ▾

Submission of applications

Registry of educational programs

 OVPO passport

 Administrative reports

 Support

[< Back](#)

Registration data

Application type	Updating of EP in the Registry	Status	Approved
Date of getting the status	12.09.2025 17:21	Sent to rework by the expert (count)	0
Sender	6772	Registration number	6B01500152

[Educational program passp](#)

Higher and Postgraduate Educational Programs

☐ Project EP ☐ Participant of project EP

Field of education *

6B01 Pedagogical sciences

☐ Interdisciplinary EP

Direction of personnel training *

6B015 Training of teachers in Natural science subjects

Group of educational programs *

B009 Teacher training in mathematics

Educational program *

6B01501 Mathematics

Curriculum *

Математика (бакалавриат)

Kazakh language

Russian language

English language

EP purpose *

Training of a specialist of the new formation, possessing professional and scientific competencies, capable of professionally solve at the modern scientific and practical level socially significant problems in the field of modern teaching mathematics.

EP type *

Acting EP

Level on NQF *

6

Level on SQF *

6

EP distinctive features

No

Degree to be conferred *

Bachelor

Period of study *

4 ▾

Volume of the credits *

240

Language of education *



 announcement.title

 Registry of the EP

Submission of applications

Registry of educational
programs

 OVPO passport

 Administrative reports

 Support

English

Professional Standard for EP *

Exists

+ Add

№	Name of professional standard
1	Professional standards for teachers of educational organizations

Professional standards (career standards)

Professional standard has been used at
developing EP ☐

Date of approval EP on the Academic Council *

14-04-2025



☒Existence of the annex to the license for the direction of personnel training

The license number on the direction of training *

KZ49LAM00007465

☐The training format is online

☒EP accreditation existence

Atlas of new professions *

қарастырылмаған

Regional standard *

қарастырылмаған

The formed educational outcomes

№	Educational outcome
1	In KazakhIn RussianIn English Ауызша және жазбаша түрде пәнаралық және пәнішілік байланыстарды жүзеге асыра отырып, әртүрлі математикалық есептерді шешу әдістемесін игеру
2	In KazakhIn RussianIn English Білім алушылар мен тәрбиеленушілердің жеке білім алу қажеттіліктерін, даму үдерістерінің физиологиялық және функционалдық ерекшеліктерін ескере отырып оқу-тәрбие процесін
3	In KazakhIn RussianIn English Математиканың классикалық бөлімдері саласында эксперименттер жүргізу, математикалық пайымдау әдістерін, математикалық терминологияны, кәсіптік деңгейде типтік есептерді шешу
4	In KazakhIn RussianIn English Заманауи геометрияның іргелі білімін кәсіби қызметте практикалық мәселелерді шешуде қолдану



announcement.title

Registry of the EP

Submission of applications

Registry of educational programs

OVPO passport

Administrative reports

Support

5	In KazakhIn RussianIn English Әр түрлі жанрдағы ғылыми зерттеулердің нәтижелерін ұсына отырып, ақпараттық және педагогикалық технологияларды қолданып, математика саласындағы білім алушылардың
6	In KazakhIn RussianIn English Физика-математика ғылымдары саласындағы математикалық әдістермен ұғымдарды, фактілер мен құбылыстарды талдау және синтездеу
7	In KazakhIn RussianIn English Құқықтық, экономикалық, кәсіпкерлік, өндірістік, экологиялық ортада, сондай-ақ қаржылық сауаттылық, инклюзия құндылықтары, тұрақты даму және сыбайлас жемқорлыққа қарсы
8	In KazakhIn RussianIn English Білім берудің жаңартылған мазмұнының стратегиясын, қашықтықтан оқытудың формалары мен әдістерін және кәсіби қызметте күтілетін нәтижелерді критериалды бағалауды қолдану
9	In KazakhIn RussianIn English Мектеп математикасы, математикалық талдау, алгебра және дифференциалдық теңдеулер саласындағы математикалық есептерді шығару
10	In KazakhIn RussianIn English Математиканы оқыту принциптерін, әдістері мен технологияларын ескере отырып, қысқа мерзімді және орта мерзімді жоспарларды әзірлеу

Data on disciplines

№	Name of discipline	Short description of discipline	Cycle	Component	Credits			
						ON1	CR	ON:
1	Methods of scientific research	The goal is to form knowledge about the principles, technologies, practical methods and techniques of conducting scientific research based on modern achievements of scientists. Forms the basic foundations of scientific culture and ethics, flexible perception of scientific texts, skills of effective application of acquired knowledge in planning and organizing research work, the ability to analyze and summarize research results.	GED	EC	5	☐		☐
2	Fundamentals of artificial intelligence	The discipline is aimed at studying the basic concepts, methods and algorithms underlying the creation and application of artificial intelligence. In this course, students will study the theoretical foundations of machine learning, neural networks, natural language processing algorithms and computer vision. They will also get acquainted with the ethical, social and legal aspects of the application of artificial intelligence in various spheres of life.	GED	EC	5	☐		☐



announcement.title

Registry of the EP

Submission of applications

Registry of educational
programs

OVPO passport

Administrative reports

Support

3	Ilyastanu	The purpose of the discipline is to develop a deep-thinking personality with high aesthetic taste, appreciating literature, art, traditions, culture and language of the Kazakh people through a deep and comprehensive study of the works of Ilyas Zhansugurov. Forms an understanding of the importance of the works of Ilyas Zhansugurov in the development of the Kazakh literary language; skills of intellectual and creative thinking, the ability to cherish the values of national and spiritual heritage.	GED	EC	5	☐	☐
4	Basics of law and anti-corruption culture	The objective is to familiarize students with the fundamental branches and institutions of law, the foundations of anti-corruption culture, as well as the patterns of emergence, development, and functioning of the state and law. The course cultivates anti-corruption awareness and a high level of theoretical knowledge concerning the primary functions of law within the state and society, its impact on the development of the rule of law and civil society, and the value of inclusion as an integral component of a just and equitable legal order. Particular emphasis is placed on fostering students' understanding of the importance of human rights for all individuals, regardless of their social, cultural, physical, or other characteristics.	GED	EC	5	☐	☐
5	Ecology and life safety basics	Purpose – the goal is to develop knowledge of the fundamentals of ecology, sustainable development, and life safety, enabling the analysis of ecological processes, the assessment of the socio-environmental consequences of anthropogenic activities, the assurance of environmental safety, and the application of methods and technologies for protection in emergency situations. Develops the ability to assess the impact of environmental factors on human health; to forecast ecological processes for planning and implementing measures aimed at enhancing life safety and ensuring environmental security; and to make informed decisions in adverse environmental and emergency situations, taking into account the potential consequences of accidents, disasters, and natural hazards within the framework of sustainable development principles.	GED	EC	5	☐	☐

- announcement.title
- Registry of the EP
- Submission of applications
- Registry of educational programs
- OVPO passport
- Administrative reports

6	Economics and entrepreneurship	Objective – to familiarize students with the economic challenges of modern society, develop economic thinking, and provide knowledge of the theoretical foundations and practical skills in the field of entrepreneurship. The program is aimed at forming a comprehensive understanding of the functioning of the economy, while delivering business education focused on acquiring applied competencies in various areas of entrepreneurial activity. Special attention is given to issues of sustainable development, efficient resource use, and the implementation of lean production principles as key elements of effective and environmentally responsible business practices. The course also explores the specifics of creating and successfully managing a business, taking into account modern requirements for environmental and social responsibility in entrepreneurship.	GED	EC	5	☐	☐
7	Algebra	The discipline is aimed at studying elements of set theory, complex numbers, vector space, systems of linear equations, algebra of matrices and determinants. The types of matrices and the basic actions on them, the basic concepts of a system of linear inhomogeneous equations are considered. Students use Kramer and Gauss methods to solve systems of linear equations, the Gauss-Jordan method to solve quadratic systems of linear equations.	BD	UC	6	☐	☐
8	Analytical geometry	The discipline is aimed at studying the concepts and methods of analytical geometry and elements of vector algebra. The main content of the discipline is the study of lines and surfaces of the 2nd order, the study of their equations, linear and affine transformations of the plane. Attention is paid to the use of analytical geometry methods to solve problems of school geometry.	BD	UC	6	☐	☐
9	Technology of criteria assessment	The discipline is aimed at studying the model of criterion assessment, its principles, stages and assessment tools, age criteria for evaluating students' educational results in teaching mathematics, pedagogical tasks of the portfolio, the functions and composition of the portfolio. Summative and formative assessment in mathematics lessons based on Bloom's taxonomy is considered.	BD	UC	5	☐	☐



 announcement.title

 Registry of the EP

Submission of applications

Registry of educational programs

 OVPO passport

 Administrative reports

 Support

10	Differential equation	The discipline is aimed at studying the basic concepts and theorems of the theory of differential equations. The types and types of differential equations, methods of solution and their application are studied. Methods for solving first- and second-order differential equations, as well as systems of differential equations, are discussed. Practical examples of the application of differential equations in various fields are considered.	BD	UC	5	☐		☐
11	Inclusive education	Examines the theoretical foundations of the organization of inclusive education, historical aspects of the development of inclusion, models of inclusive education. Studies technologies of inclusive education, drawing up an individual educational route, planning the educational process taking into account the special educational needs of children, organizing tutoring practice in an inclusive learning environment	BD	UC	5	☐		☒
12	Physiology of school children development	Considers the General patterns of age-related features of growth and development of children and adolescents, the formation of their physiological functions. Studies the interaction of the child with the environment, hygiene standards and requirements aimed at the protection and promotion of health, harmonious development and improvement of the functionality of the body of children and adolescents	BD	UC	5	☐		☒
13	Pedagogy	Examines the latest teaching methods and technologies within the updated content of secondary education. Studies methods of scientific analysis, forecasting, planning and management of the pedagogical process. Forms theoretical ideas about pedagogy as a branch of humanitarian knowledge and the interaction of subjects of the educational process	BD	UC	5	☐		☒
14	Theory of Number	The discipline is aimed at studying numerical sets and solving problems of division with remainder, properties of the divisibility ratio, comparison and systems of comparisons with unknown quantities. Proofs of Euler and Fermat theorems are given. Methods of solving diophantine equations are studied. Methods of solving problems of number theory for the study of rings and group theory are considered.	BD	UC	5	☐		☐



 announcement.title

 Registry of the EP

Submission of applications

Registry of educational programs

 OVPO passport

 Administrative reports

 Support

15	Theory and methods of educational work	Examines the methods of organizing educational work and describes the laws, the essence and content of the processes of education, studies the features and principles of education within the updated content of secondary education. It is aimed at forming the interest of the future teacher for subsequent pedagogical self-education and professional self-improvement	BD	UC	5	☐		☒
16	Elementary mathematics	The discipline is aimed at studying elements of set theory, real and complex numbers, polynomials of one and several variables, algebraic expressions, algebraic equations and inequalities. Trigonometric, exponential and logarithmic formulas, equations and inequalities are considered. Attention is paid to planimetric and stereometric topics. Various methods of solving problems of the school mathematics course are studied.	BD	UC	6	☒	High	☐
17	Workshop on solving algebraic problems	The discipline is aimed at studying methods of solving algebraic problems in the school course of mathematics and their application in future professional activity. Solutions of mathematical problems are studied in standard and non-standard ways. Students master the skills of solving various algebraic problems of the school mathematics course of increased complexity.	BD	EC	7	☒	High	☐
18	Methodical basis for solving algebraic problems	The discipline is aimed at studying methodological issues related to solving algebraic problems. This discipline is associated with such sciences as elementary mathematics, pedagogy, logic, psychology, history of mathematics. The materials on interdisciplinary integration and interdisciplinary relations, as well as the methodology of their use in the process of teaching mathematics at school, are considered.	BD	EC	7	☒	High	☐
19	Innovative processes in education	The discipline is aimed at studying the general concepts of innovative processes in education. Examines the content of the basic concepts and methods of action that make up innovative approaches in teaching and teaching mathematics according to the updated content of education. Methodological techniques and teaching technologies that allow students to manage their activities when studying specific content issues, taking into account the characteristics of school-age children, are explained.	BD	EC	5	☐		☐



 announcement.title

 Registry of the EP

Submission of applications

Registry of educational programs

 OVPO passport

 Administrative reports

 Support

20	Workshop on the solution of geometric problems	The discipline is aimed at studying the properties of geometric shapes on the plane and in space, the concepts of the axioms of planimetry and stereometry, spatial figures. Various methods of solving geometric problems in the school mathematics course and their application in future professional activity are studied.	BD	EC	7	☐		☐
21	Methodical bases for solving geometric problems	The discipline is aimed at studying the methodological features of teaching geometry in secondary school. Examines the basic concepts and axioms of planimetry, the concepts of convex figures, quadrilaterals, polygons and polyhedra. The method of calculating the areas and volumes of spatial bodies is studied: a prism, a pyramid, a cylinder, a cone, a ball, etc. Various methodological techniques and methods for solving geometric problems are discussed.	BD	EC	7	☐		☐
22	Partial differential equations	The discipline is aimed at studying first-order partial differential equations and their applications. Various classifications of linear partial differential equations are discussed, the content of which covers a range of issues related to numerical modeling of deformable solid mechanics problems. The course covers the general theory of systems of partial differential equations of the first order. Examples of solving partial differential equations of applied orientation are presented.	BD	EC	6	☐		☐
23	General physics Course	Examines the main sections of mechanics, molecular physics and thermodynamics, electricity and magnetism. The methods of solving problems in physics based on the physical laws of natural phenomena are studied, the methods of performing numerical and experimental studies are described, the ability to process and analyze the results is carried out.	BD	EC	5	☐		☐
24	Modern physics	The discipline is aimed at forming students' ideas about the basic concepts and fundamental concepts of the most actively developing and promising areas of modern physics. Application of methods of modern physical physics to solving mathematical problems.	BD	EC	5	☐		☐



announcement.title

Registry of the EP

Submission of applications

Registry of educational programs

OVPO passport

Administrative reports

Support

25	Theory of the function of complex variable	The discipline is aimed at studying complex numbers, the complex plane, the module and the argument of a complex number, its properties. The problems of determining the function of a complex variable, the mapping of sets, the limit of the function and continuity are presented. Methods for calculating the modulus of continuity and differentiability of a complex variable according to the Cauchy-Riemann condition are presented. Considers the geometric meaning of the argument and the modulus of the derivative and the concept of conformal mapping.	BD	EC	5	☐	☐
26	Fundamentals of financial literacy	The course "Fundamentals of Financial Literacy" is aimed at gaining knowledge and skills in the field of personal finance management. Also, as part of the course, students will learn how to use in practice all kinds of tools in the field of finance, save and increase savings, plan a budget competently, learn how to analyze financial information and navigate financial products to choose an adequate investment strategy	BD	EC	5	☐	☐
27	Methodology and technology of distance education	Methodological issues of distance learning and e-learning methods are considered, the features of the organization of the educational process using distance learning technologies are studied, taking into account the achievements of science, modern educational practice and advanced pedagogical experience.	BD	EC	5	☐	☐
28	Fundamentals of applied behavior analysis	Course goal — to develop the ability, grounded in Applied Behavior Analysis (ABA), to critically analyze data-based functions of behavior; design and implement individualized interventions in inclusive educational settings; and evaluate their effectiveness, safety, and ethical soundness. Develops skills to: operationalize behavior; collect and analyze data (incl. ABC); identify behavioral functions; design and apply behavior support plans; teach functionally equivalent alternative behavior; manage crisis situations; and assess outcomes.	BD	EC	5	☐	☒



 announcement.title

 Registry of the EP

Submission of applications

Registry of educational programs

 OVPO passport

 Administrative reports

 Support

29	Methods for solving Olympiad problems in mathematics	The discipline covers aspects of designing various methods, techniques and techniques for solving Olympiad problems in mathematics. Examples of the use of various technologies and techniques for solving Olympiad problems in mathematics are presented. The issues of organizing international and republican Olympiads on the subject of mathematics are discussed.	BD	EC	5	☒	Norm	☐
30	Methods and methods of solving non-standard problems in mathematics	The discipline is aimed at studying the role and place of non-standard tasks in the process of teaching mathematics in secondary school. The discipline is aimed at the formation of students' creative abilities by solving non-standard tasks in mathematics lessons. Various methods and techniques for solving non-standard tasks are presented.	BD	EC	5	☒	High	☐
31	Methods for solving practice-oriented problems in mathematics	The discipline is aimed at studying the methodological foundations of solving practice-oriented problems in the school course of mathematics and related subject areas. The methods of statistical data processing are studied by means of drawing up tables, graphs and diagrams. The course is aimed at the formation of functional literacy among students through solving practice-oriented tasks.	BD	EC	5	☒	High	☐
32	Equations of mathematical physics	The basic concepts and methods of constructing mathematical models of the simplest physical processes, methods of investigating the correctness of boundary value problems for classical equations of mathematical physics, basic methods of constructing exact solutions to problems of mathematical physics are presented	BD	EC	6	☐		☐
33	Methods of using computer algebra systems in the study of mathematics	The study of computer algebra systems is designed to improve the logical and information culture of future mathematics teachers, through the formation of a systematic approach to the use of information technologies in solving problems in various subject areas, to introduce them to the problems of computer application with an emphasis on ideas, methods, prospects and applied systems useful in further pedagogical activity.	BD	EC	5	☐		☐



 announcement.title

 Registry of the EP

Submission of applications

Registry of educational programs

 OVPO passport

 Administrative reports

 Support

34	Theory of the function of a real variable	The discipline is aimed at studying the basic concepts and methods of the theory of functions of a real variable, mastering the skills of practical use of methods of real analysis in solving various theoretical and applied problems.	BD	EC	5	☐		☐
35	Development of functional literacy of secondary school students	The discipline covers aspects of designing various methods, techniques and techniques for solving Olympiad problems in mathematics. The systems of exercises on the use of various technologies and techniques for solving Olympiad problems on matadic problems in mathematics are presented. The issues of organizing international and republican Olympiads on the subject of mathematics are considered.	BD	EC	5	☒	High	☐
36	Academic writing	The discipline introduces students to the necessary concepts, terms and modern concepts of the basic principles of creating academic texts, such as essays, abstracts, abstracts, reports, etc. Forms the skills of correct compilation of a bibliographic description. The requirements of the international academic community to the design and structure of scientific research of various genres, such as a scientific article, thesis, etc., are considered. The discipline is aimed at developing students' scientific thinking and acquiring research skills.	PD	UC	4	☐		☐
37	Research and project activities in educational institution	The discipline is aimed at studying the methodology of scientific research. Examines the features of the organization of educational research through the implementation of research and project activities of students, the specifics of the implementation of research tasks, the presentation of research results, the classification of creative works of students in the field of mathematics. The general characteristics of the methods and stages of research activity are presented.	PD	UC	4	☐		☐
38	Discrete mathematics and mathematical logic	The discipline studies the basic concepts of mathematical logic statements, formulas, their true meanings, identically true, false and feasible formulas, equivalent formulas, reduction of formulas using equivalent transformations to normal forms. Examples of the application of ideas and ideas and methods of modern discrete mathematics and mathematical logic to solve practical problems are presented.	PD	UC	7	☐		☐

announcement.title

Registry of the EP

Submission of applications

Registry of educational programs

OVPO passport

Administrative reports

Support

39	Mathematical Analysis 1	The discipline is aimed at studying the basic concepts of the theory of numerical sets, the concepts of the theory of limits and the theory of continuous functions. It covers aspects of the geometric and mechanical meaning of the derivative function and the rules of differentiation. The methods of investigating the function using the power of the derivative and plotting their graphs are considered. A system of exercises of practical tasks with the use of mathematical methods, models and laws is presented.	PD	UC	6	☐	☐
40	Mathematical Analysis 2	The discipline is aimed at studying the basic concepts of differential and integral calculus. Methods of solving problems on the extremums of the function, finding the largest and smallest values of the function are considered. Calculation methods are discussed methods for calculating the indefinite and definite integral of the integral, the plal, the area of a curved trapezoid. A system of exercises of applied problems using the theory of differential and integral calculus of one variable is presented.	PD	UC	6	☐	☐
41	Mathematical Analysis 3	The discipline is aimed at studying the basic concepts of the theory of series and improper integrals. The methods of research on the convergence and divergence of series are studied. The solutions of problems with the use of methods of mathematical analysis of mathematical analysis for the study of the function of many variables are considered. Preh. The methods of collecting, analyzing and processing data necessary for solving professional tasks are presented.	PD	UC	5	☐	☐
42	Methods of teaching mathematics	The discipline considers the subject, the purpose of teaching, the content and principles of teaching methods of teaching mathematics within the updated content of secondary education. Innovative methods, means and forms of teaching mathematics are studied. The article considers the method of introducing mathematical mathematical concepts in the school mathematics course, as well as the structure of short-term, medium-term, long-term lesson planning, the basic requirements for the lesson and the classification of independent work.	PD	UC	6	☐	☐

announcement.title

Registry of the EP

Submission of applications

Registry of educational programs

OVPO passport

Administrative reports

43	Probability theory	The discipline is aimed at studying elements of combinatorics, probability theory. The main content of the course is devoted to the study of random events and random variables. Examples of applying theoretical knowledge to solving probabilistic and combinatorial problems are presented.	PD	UC	5	☐		☐
44	Mathematical statistics	The discipline consists of a theoretical part, where the basic concepts, definitions, methods of mathematical statistics are considered. The requirements for statistical data, the general population and the sample are presented. Examples of applying theoretical knowledge to solving statistical problems are given.	PD	EC	5	☐		☐

EO attainability coefficient: 94,11 %

	State	Status assignment date and time	General expert op
1	Expertise	12.09.2025 17:21	обновить

Basis for updating of EP *

Изменение лицензии, исключен ПС Педагог, утративший силу. Добавили новую дисциплину "Основы прикладного поведения".