

**АХМЕТ БАЙТҰРСЫНҰЛЫ АТЫНДАҒЫ ҚОСТАНАЙ Өңірлік
УНИВЕРСИТЕТІ
КОСТАНАЙСКИЙ РЕГИОНАЛЬНЫЙ УНИВЕРСИТЕТ
ИМЕНИ АХМЕТ БАЙТҰРСЫНҰЛЫ
AKHMET BAITURSYNULY KOSTANAY REGIONAL UNIVERSITY**



**Educational program
6B01202 School Education (IP)**

Level: bachelor course

Kostanay, 2023

**Протокол
заседания Республиканского учебно-методического совета
Министерства образования и науки Республики Казахстан**

г. Астана

18 мая 2023 года

Председательствовал: Вице-министр науки и высшего образования Республики Казахстан К.Ергалиев

Присутствовали: (по списку)

Повестка дня

1. Одобрение 30 образовательных программ, разработанных в рамках проекта Всемирного Банка «Усиление педагогического потенциала РК»

Г.С. Джарасова

1. Информацию проректора по академическим вопросам Казахского национального педагогического университета имени Абая принять к сведению.

2. Одобрить 30 образовательных программ, разработанных в рамках проекта ВБ «Усиление педагогического потенциала РК».

3. Организациям высшего и (или) послевузовского образования (далее – ОВПО), участвующим в проекте ВБ «Усиление педагогического потенциала РК», обеспечить подготовку качественного пилотирования ОП с 2023-2024 учебного года (прием обучающихся, индивидуальные учебные планы обучающихся, силлабусы, повышение квалификации ППС).

4. УМО-ГУП по направлениям «Педагогические науки» определить соответствие 30 образовательных программ с действующими группами образовательных программ (далее – ГОП) в срок до 10 июня т.г.

5. Комитету высшего и послевузовского образования МНВО обсудить на заседании рабочей группы по рассмотрению нормативных документов вопрос по внесению изменений в государственные общеобязательные стандарты послевузовского образования по расширению академической самостоятельности вузов в срок до 30 июня т.г.

Contents

1. General information	4
2. Programme rationale	7
3. Teacher's professional competences.....	8
4. Program structure and learning outcomes.....	12
4.1. Structure of the pedagogical component.....	12
4.2 Structure of the subject component.....	27
4.3 The structure of the compulsory component.....	65
4.4 Progression of the studies	68
4.5 Requirements for the successful completion of curriculum.....	75
5. Description of students' work	75
6. Evaluation methods/Assessment.....	76
6.1 Assessment.....	76
6.2 External evaluation	78
7. Faculty requirements.....	79
7.1 Faculty Requirements	79
7.2 Additionally Required Faculty.....	79
7.3 Required professional development of faculty	80
7.4 Required additional administrative staff	80
8. Resources	80
8.1 Library Resources	80
8.2 IT Resources	80
8.3 Infrastructure.....	81
9. Additional information.....	81
9.1 Additional materials.....	81
9.2 E-learning.....	82
10. Approval	82
APPENDIX 1: Main principles of the curriculum	84
Literature.....	94

1. General information

1.1. Curriculum title	Pre-School Education	
1.2. Curriculum developing team:		
	Leader university	Member universities
	Akhmet Baitursynuly Kostanay regional university	Sh. Ualikhanov Kokshetau University
		S. Amanzholov East Kazakhstan University
		M. Utemisov West Kazakhstan University
		Pavlodar Pedagogical University
		M.Kh. Dulati Taraz Regional University
1.3. Type of curriculum (in accordance with the National Qualifications Framework)	BACHELOR'S DEGREE Level 6	
1.4. Total academic credits	240 academic credits	
1.5. Study mode	full-time	
1.6. Expected program duration	4 years	
1.7. Short curriculum descriptionCurriculum goals and objectives	This Educational Programme (EP) "Pre-School Education" is a national teacher education curriculum, which has been designed in collaboration by various Kazakh universities and with international consulting. Due to the nature of a national curriculum, the descriptive texts within the curriculum do not provide specific information but highlight general pedagogical	

principles and cross-cutting themes (see also Annex 1.). The more detailed descriptions of e.g. methodologies and assessment will be identified in the implementation plans of the universities, considering also institutional and regional specific conditions.

Educational programme (EP) "*Pre-School Education*" is a teacher education programme for pre-service teachers who wish to specialize in pre-school education. EP consists of a pedagogical component 64 academic credits (incl. pedagogical practice), a compulsory component 56 academic credits, and a subject component 120 academic credits (incl. a final thesis of 8 academic credits).

Subject component consists of 5 modules: "Psychological and pedagogical foundations of early development and pre-school education", "Managing innovative processes in pre-school organization", "Designing children's realization space", "Methods of pedagogical support for children of early and pre-school age in terms of integration", "Pedagogical Research in Early Childhood Education".

EP "*Pre-School Education*" is developed based on competence-based approach in teacher education for pre-school education system of the Republic of Kazakhstan. EP reflects the ideas of modernization in the field of early development and pre-school education of Kazakhstan in accordance with:

- research results (National report on the state and development of education system of the Republic of Kazakhstan, based on results of 2020: Ministry of Education and Science of the Republic of Kazakhstan, Information and Analytical Center JSC, 2021);
- State and regulatory documents in the field of the National Policy for the Development of Pre-school education of the Republic of Kazakhstan (Model for Development of Pre-school education and Training (approved by the Decree of the Government of the Republic of Kazakhstan dated March 15, 2021 No. 137);

- building institutional capacity through: improving social status of a pre-school teacher, ensuring equal access to pre-school education, creating an inclusive educational environment within the framework of inclusive pre-school education, expanding early development system, developing and implementing variable programs for early development and pre-school education, improving monitoring of skills development and skills in early and pre-school years, introducing a national assessment of the quality of early childhood education for sustainable development.

EP provides an equal opportunity for learning without compromising pre-service teachers' rights and interests, preserving the principles of equality, respect, tolerance. It is interdisciplinary, student-oriented, scientifically integrated and problem-oriented by nature, and the selection of courses is guided by the topical issues of history and society and corresponds also to the international course descriptors.

EP is based on the principles of constructive alignment, where teaching and assessment methods, as well as subject-specific courses are selected to ensure the achievement and measurement of the competences outlined in the EP. The EP also follows an inclusive approach considering the multi-ethnic and multi-confessional composition of pre-service teachers and their versatile needs for support of learning.

1.8 Main principles of the curriculum

Competence-based teacher education

A teacher's expertise combines competence in pedagogy and their own subject-specific field with theoretical and practical teaching competence in different kinds of operating environments. A teacher has mastery of the knowledge and skill requirements of their subject-specific field and thus is able to develop, educate, train and supervise children of early and pre-school age attending a pre-school organization.

The competence of a teacher is focused on planning, guidance, teaching and assessment. For this reason, teacher must have sufficient theoretical knowledge

of learning and competence development. In addition, modern working life emphasises cooperation and networking, development skills, and the support and maintenance of the well-being of oneself and one's community.

A teacher's competence is influenced by changes in the labour market, early childhood education structures and society as a whole, and all these elements are emphasised in the dynamic nature of a teacher's work. Work characterized by continual change in the variety of working environments places an emphasis on the teacher's ability to assess and adjust their own activities. Self-assessment skills are an essential part of developing one's professional identity. A teacher is making value decisions all the time, which means that the consideration of questions of professional ethics is one of the professional skills needed. Change requires the development of expertise, the ability to learn, as well as the ability to reform and renew the way things are done as part of a community.

Competence-based teacher education curriculum

The competence-based teacher education curriculum is formed of three entities: 1) Pedagogical studies, 2) Subject-specific studies 3) Compulsory studies. Each of the entities includes modules and related courses. The courses' learning outcomes describe the competences required in teaching work and are placed in the NQF system's (National Qualifications Framework) reference level six.

The curriculum is guided by the following main principles:

- Competence-based learning
- Constructive alignment
- Student-centred learning and active learning methodologies
- Research-based teaching
- Interdisciplinary learning
- Inclusion
- Teacher professional development and change management

(see Appendix for more details)

2. Programme rationale

In the context of the Education Modernization Project funded by the World Bank, several universities providing pre-service teacher education have designed and revised in international collaboration thirty (30) pre-service teacher education curricula according to the principles of competence-based education that ensure a holistic development of pre-service teachers' competences. Moreover, the student-centered approach better prepares pre-

service teachers to teaching profession by providing practical examples, experiments and experiences, which pre-service teachers can transfer to their classroom practices considering better the versatile needs and wellbeing of their students.

In order to match the requirements of the renewed primary and secondary education, teachers' professional competences need to be re-evaluated and completed. The new approaches in secondary education need to be reflected in pre-service teacher education and the pre-service teachers' profiles. Furthermore, these thirty (30) revised or new pre-service teacher education curricula have been designed to better improve pre-service teachers' various generic competences that are essential in teacher's profession. Several important and cross-cutting pedagogical principles that Kazakhstan education system aims to develop, such as inclusiveness and interdisciplinarity, have been taken into consideration in the design and implementation of the curricula. In addition, these curricula emphasize the development of pre-service teachers' research skills in a way that they become practitioners who are constantly reflecting and evaluating their own practices and the practices of their schools to develop their own work and their work community, and the whole sector of education.

3. Teacher's professional competences

Teachers' professional competences are defined as consisting of **pedagogical competences** and **subject-specific competences** as well as **generic competences**. The competence-based teacher education curriculum is thus formed of three entities: 1) Pedagogical studies, 2) Subject-specific studies 3) Compulsory studies. Competence areas and competences have been defined separately for each entity.

3.1. Pedagogical and Generic Competence Areas/Learning Outcomes

- **Competence area for pedagogy and didactics**

1. Pre-service teachers have basic knowledge and understanding of learning and students and are able consider the diversity of students in learning/teaching process and support their well-being in psychologically and ethically sound manner considering their life and learning contexts.
2. Pre-service teachers are capable to design, implement, assess, and develop learning and guidance processes in different kinds of learning environments in a pedagogically meaningful way including ability to utilize different digital resources in a manner that supports

learning.

- **Competence area for interaction**

3. Pre-service teachers are able to communicate in different interactive relationships and partner networks in a meaningful manner both in face-to-face and online settings with regard to the goals set for the activity in question.
4. Pre-service teachers are capable of working in different collaboration networks and have the ability to create new relationships that are appropriate for the development of one's own and one's community activities.
5. Pre-service teachers are able to teach in accordance with the tri-lingual approach in secondary education and participate in the global professional community.

- **Competence area for teachers' work environment**

6. Pre-service teachers are familiar with the international and national agreements and documents as well as legislation that affects his/her institution's and his/her work.
7. Pre-service teachers are able to (a) to perceive his / her own activities in relation to the activities of his/her organization, and (b) work in a meaningful way to create positive relationships between the partners outside the school (families, regional actors, working life).

- **Competence area for professional development**

8. Pre-service teachers are able to reflect and critically assess their values, attitudes, ethical principles and work methods as a teacher and are able to set new goals to his/her own and his/her organization's pedagogical development.
9. Pre-service teachers are able to develop his / her own and his / her organization's pedagogical activities in relation to the anticipated changes at regional, national and international level.
10. Pre-service teachers are able to produce, seek and critically select theoretical knowledge that, combined with experiential knowledge, serves the development of both him/her and his/her community's theory-in-use, and the ability and willingness to use knowledge to promote learning and own professional growth.

3.2 Subject-specific and Generic Competence Areas/ Learning Outcomes

- **Competence area for pedagogy and psychology of early and pre-school age**

1. Pre-service teachers are able to apply interdisciplinary knowledges to develop early childhood education for sustainable evolution;
2. Pre-service teachers are able to apply theoretical and methodological knowledge in pedagogy and psychology to organize gaming and

- other types of productive activities for children of early and pre-school age;
3. Pre-service teachers are able to follow the principle of continuity and continuity between pre-school education and primary education to implement the requirements for the content of early development and pre-school education.
- **Competence area for designing a subject-spatial developing environment for a preschool organization:**
 4. Pre-service teachers are able to design interactive developmental environment of a pre-school organization, taking into account an integration of all types of activities and special educational needs of pupils;
 5. Pre-service teachers are able to organize interaction with the parent community and the pedagogical community within the framework of social partnership.
 - **Competence area for organizing and managing educational process in a pre-school organization**
 6. Pre-service teachers are able to use modern approaches for effective organization and management of educational process in a pre-school organization;
 7. Pre-service teachers are able to systematize and apply traditional and innovative pedagogical experience in using methods and technologies for the development, education and training, as well as strengthening mental and physical health of children of early childhood and pre-school age;
 - **Competence area for research and evaluation of the quality of early childhood education**
 8. Pre-service teachers are able to conduct local (subnational), national, regional, or international early childhood education research on their own or in teams;
 9. Pre-service teachers are able to apply the tools (criteria and indicators) and methods of scientific and pedagogical research to assess the quality of pre-school education for sustainable development;
 10. Pre-service teachers are able to analyze the results of monitoring evolution of skills and abilities of pupils of early childhood and pre-school age to correct educational process.
 - **Competence area for self-development of the personality of a teacher of a pre-school organization**
 11. Pre-service teachers are able to implement a value-oriented approach

in the process of development and education of children of early and pre-school age;

12. Pre-service teachers are able to develop emotional intelligence and leadership skills to create an atmosphere of well-being through cooperation and co-creation with the parent and educational community;
13. Pre-service teachers are able to develop an individual trajectory of self-development and self-education based on pedagogical reflection and self-reflection;
14. Pre-service teachers are able to comply with the norms of pedagogical ethics and the principles of academic honesty in accordance with the demands of the Kazakh society to the personality of the teacher-researcher.

3.3 Compulsory component: Competence Areas/ Learning Outcomes

- **Competence area for worldview, historical, and moral development**
 1. Pre-service teachers are able to assess the surrounding reality on the basis of ideological positions, formed by a knowledge of the fundamentals of philosophy, which provide scientific understanding and study of the natural and social world by methods of scientific and philosophical knowledge.
 2. Pre-service teachers are capable to interpret the content and specific features of the mythological, religious and scientific worldview
 3. Pre-service teachers have deep understanding and scientific analysis of the main stages, patterns and characteristics of the historical development of Kazakhstan.
 4. Pre-service teachers are able to analyse the causes and consequences of the events in the history of Kazakhstan.
- **Competence area for social, cultural, and civic development**
 5. Pre-service teachers are able to develop their own moral and civic position and able to operate with the social, business, cultural, legal and ethical norms of society.
 6. Pre-service teachers have knowledge and understanding of the basics of socio-political, economic and legal studies and are able to demonstrate personal and professional competitiveness.
 7. Pre-service teachers are able to assess situations and provide arguments for their own assessments of developments in the social and work environment.
- **Competence area for interpersonal social and professional communication**
 8. Pre-service teachers are able to assess situations in various spheres

of interpersonal, social and professional communication and enter into communication in oral and written forms in Kazakh, Russian and foreign languages.

9. Pre-service teachers are able to use in their personal activities various types of information and communication technologies: Internet resources, cloud and mobile services for searching, storing, processing, protecting and distributing information.
10. Pre-service teachers are able to maintain a healthy lifestyle to achieve productive social and professional activities through the methods and means of physical education.
11. Pre-service teachers are able to select methodology and analysis, use scientific research methods and techniques, and synthesise new knowledge.

4. Program structure and learning outcomes

4.1. Structure of the pedagogical component

The extent of the Pedagogical Component shall be 64 academic credits, including teaching practice. This component is common for all curricula in initial teacher education. The Pedagogical Component has been jointly created by all the involved universities in a collaborative design process. The component is flexible and leaves space for individual universities to implement it according to their specific situation and needs.

The overall structure of the pedagogical studies component:

Module name and main disciplines	Academic credits
SUPPORTING LEARNERS AS INDIVIDUALS	17
Psychology in Education and Concepts of Interaction and Communication	4
Educational Science and Key Theories of Learning	3
Age and Physiological Features of the Development of Children	3
Inclusive Educational Environment	3
Teaching Planning and Individualization of Learning	4
TEACHING AND ASSESSMENT FOR LEARNING	9
Teaching Methods and Technologies	5
Assessment and Development	4
TEACHER AS A REFLECTIVE PRACTITIONER	9
Pedagogical Research	4
Research, Development and Innovation	5

TEACHER AS A FACILITATOR OF LEARNING(PEDAGOGICAL PRACTICE)	29
Introduction to the teaching profession(1st year pedagogical practice)	2
Psychological and pedagogical assessment(2nd year pedagogical practice)	2
Pedagogical approaches(3rd year pedagogical practice)	6
Research and innovation in education(4th year pedagogical practice)	15
Pre-diploma practice - 4th year	4
Total academic credits	64

The modules, courses, their learning outcomes, and relation to competence areas in more detail:

Supporting learners as individuals 17 Academic credits

This module provides an overview of psychological theories, concepts, and models which help to understand the pupils' individual needs and individual differences in learning. The module provides the pre-service teachers with competences to acknowledge individualization of learning and the diversity of learners in teaching. The module highlights the importance of enhancing learner well-being through creating and maintaining a psychologically safe educational environment.

Course title	Psychology in Education and Concepts of Interaction and Communication
Component	Pedagogical component
Cycle	Core disciplines
Module	Supporting learners as individuals 17 Academic credits
Academic credits	4
Course / competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and didactics (1) • Competence area for interaction (3, 4) <p>Pre-service teachers are familiar with the modern psychological theories and models, as well as personality functioning and individual properties. They can apply the knowledge in their teaching in diverse educational contexts.</p>

	Pre-service teachers support positive development of learners by fostering dialogue, interaction, and communication in the educational process. They are able to communicate, interact, and collaborate with pupils' families as well as in various other partnership networks and create new relationships suitable for the development of their own pedagogical activity.
Learning outcomes	<p>Pre-service teachers who demonstrate competence can:</p> <ul style="list-style-type: none"> • understand the basic concepts and terms of educational psychology, and the main practical applications of psychological knowledge; • understand the patterns, facts, and phenomena of cognitive and personal development of a person in the processes of education and upbringing; • apply an integrated approach to design, implementation, evaluation, and development of educational environments; • understand the concept of continuous learning as a part of the process of cognitive and personal development of a person. • apply basic communication and interaction concepts and theories at the individual, community, and network levels; • select the methods of communication and interaction that are most appropriate to facilitate learning in various forms (offline, online, blended, hybrid); • recognize the patterns of group dynamics and act in ways that promote community development and well-being.
Course title	Educational Science and Key Theories of Learning
Component	Pedagogical component
Cycle	Core disciplines
Module	Supporting learners as individuals 17 Academic credits
Academic credits	3
Course / competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and didactics (1, 2) <p>Pre-service teachers explore the basics of educational science such as the conceptions of man leading to various learning</p>

	theories and pedagogical models. Based on their understanding of the theoretical concepts, pre-service teachers are able to make appropriate pedagogical choices for various learning situations.
Learning outcomes	Pre-service teachers who demonstrate competence can: <ul style="list-style-type: none"> • distinguish between concepts of human and their importance for understanding learning and the design of an educational process; • differentiate between learning theories and their importance for understanding learning and the design of an educational process; • apply learning theories and pedagogical models suitable for versatile learning processes.
Course title	Age and Physiological Features of the Development of Children
Component	Pedagogical component
Cycle	Core disciplines
Module	Supporting learners as individuals 17 Academic credits
Academic credits	3
Course/competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and didactics (2) <p>Pre-service teachers are familiar with the formation of psyche, its functioning, and the patterns of development. Pre-service teachers can observe the development of their students, and accordingly, plan and implement age-appropriate learning processes considering individual needs of students. Pre-service teachers act creatively and appropriately in different situations and support learning and well-being of the learners.</p>
Learning outcomes	Pre-service teachers who demonstrate competence can: <ul style="list-style-type: none"> • recognize the individual starting points of different students, their learning potential and specific support needs; • consider the individual needs of their students for specific support, guidance, teaching and assessment; • introduce various methodological solutions for inclusion and for providing specific support.

Course title	Inclusive Educational Environment
Component	Pedagogical component
Cycle	Core disciplines
Module	Supporting learners as individuals 17 Academic credits
Academic credits	3
Course / competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and didactics (2) • Competence area for teachers' work environment (6, 7) <p>Pre-service teachers have the ability to consider the diversity of learners and identify their individual needs in the learning / teaching process. Pre-service teachers support students' learning and inclusion in the educational process by using suitable ICT, teaching and assistive technologies. Pre-service teachers maintain students' well-being from psychological and ethical perspective in collaboration with the community (teachers, students, parents/guardians) considering the context of students' life and learning.</p>
Learning outcomes	<p>Pre-service teachers who demonstrate competence can:</p> <ul style="list-style-type: none"> • identify the individual educational needs that affect participation and learning in a diverse group of students; • use ICT and assistive technologies to support students' learning and inclusion in the educational process. • teach values and attitudes beneficial to collaboration and inclusivity; • support collaboration in the community (teachers, students, parents/guardians).

Course title	Teaching Planning and Individualization of Learning
Component	Pedagogical component
Cycle	Core disciplines
Module	Supporting learners as individuals 17 Academic credits
Academic credits	4
Course / competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and didactics (1, 2) <p>Pre-service teachers are familiar with the curriculum in their area of teaching and the guiding pedagogical principles and</p>

	cross-cutting development themes of a specific level of education, such as entrepreneurship and sustainable development. Pre-service teachers possess the necessary skills of individualization of teaching, considering the diversity of students and their inclusion to the learning process, as well as the use of teaching technologies, based on pedagogical and independent research.
Learning outcomes	<p>Pre-service teachers who demonstrate competence can:</p> <ul style="list-style-type: none"> • understand the main principles and requirements of the curriculum in their area of teaching and apply them in planning and conducting educational activities; • identify factors and conditions that affect students' learning; • apply in practice the principles of inclusion as well as individualized teaching and guidance (adapting curricula, developing differentiated lessons) by considering the needs of the students and support the development of their personality and self-esteem, including career guidance.

Teaching and assessment for learning 9 Academic credits

This module provides the teacher students with competencies to carry out interactive and student-centered teaching and assessment aligned with learning objectives. The module highlights the use of digital tools and technologies and the ability to update and apply teaching technologies in the context of ongoing changes in the society and the educational environment. This module supports the pre-service teachers' competence to communicate and collaborate in various partnership networks to enhance own pedagogical activity.

Course title	Teaching Methods and Technologies
Component	Pedagogical component
Cycle	Core disciplines
Module	Teaching and assessment for learning 9 Academic credits
Academic credits	5

Course / competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and didactics (1, 2) <p>Pre-service teachers have a comprehensive understanding of teaching strategies and methodologies, and can apply them in planning, teaching, and assessment in innovative ways matching the specific pedagogical situations, conditions of a specific school and the capabilities of students. Pre-service teachers are able to design suitable inclusive physical and online learning environments at different stages of the educational process. Pre-service teachers understand and can apply the regulations of copyright and data protection in their learning material planning. Pre-service teachers possess necessary knowledge of didactics, learning technologies and methods of motivating students being able to provide necessary pedagogical assistance to students.</p>
Learning outcomes	<p>Pre-service teachers who demonstrate competence can:</p> <ul style="list-style-type: none"> • select pedagogical models suitable for teaching; • apply teaching methods in a creative and varied manner, considering the opportunities offered by learning technologies; • use a suitable inclusive learning environment in their teaching; • acknowledge and apply the norms and principles of copyright and data protection; • apply guidance methods to motivate students and to support their learning achievements.
Course title	Assessment and Development
Component	Pedagogical component
Cycle	Core disciplines
Module	Teaching and assessment for learning 9 Academic credits
Academic credits	4

Course / competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and didactics (2) <p>Pre-service teachers have a thorough understanding of the meaning of assessment in learning process and are able to provide constructive assessment in ethical manner in different phases of learning processes and engage learners in assessment. Pre-service teachers identify, differentiate, and use different assessment technologies, principles, stages, and assessment tools in their own field of expertise (including formative and summative assessment and self- and peer-assessment, etc). They can critically evaluate and analyze their understanding and practices concerning assessment and develop them further.</p>
Learning outcomes	<p>Pre-service teachers who demonstrate competence can:</p> <ul style="list-style-type: none"> • use and apply a variety of methods and tools of assessment and feedback (formative and summative assessment); • apply pedagogical principles in defining and recognizing competence levels of learners; • understand the importance and support the development of students' self- and peer-assessment skills.

Teacher as a reflective practitioner⁹ Academic credits

This module focuses on the methodological foundations of pedagogy, and it provides understanding of how pedagogical research informs teaching practices. The module helps the pre-service teachers to develop their reflection skills to become aware of themselves as teachers and to develop their own teaching as well as the ability to set new goals for pedagogical development to ensure lifelong learning. The module also addresses the ethical aspects of the teachers' work and its development.

Course title	Pedagogical Research
Component	Pedagogical component
Cycle	Core disciplines
Module	Teacher as a reflective practitioner ⁹ Academic credits
Academic credits	4
Course / competence	The purpose of this course is to improve the following areas of pedagogical competence:

description	<ul style="list-style-type: none"> • Competence area for professional development (10) <p>This course provides pre-service teachers with a theoretical foundation on pedagogical research. Pre-service teachers possess skills to seek and critically select theoretical knowledge from various reliable sources, utilize research findings in the development their pedagogical thinking and practice, and adopt willingness to promote research-based learning and education as well as their own continuing development and professional growth.</p>
Learning outcomes	<p>Pre-service teachers who demonstrate competence can:</p> <ul style="list-style-type: none"> • recognize the nature of pedagogy and its basic terminology; • identify the central areas of research in pedagogy and understand the difference between everyday thinking and scientific knowledge; • follow the changes in the field of education and consider how they influence own work as a teacher.

Course title	Research, Development, and Innovation
Component	Pedagogical component
Cycle	Core disciplines
Module	Teacher as a reflective practitioner ⁹ Academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> • Competence area for professional development (8, 9) • Competence area for interaction (5) <p>To stay up-to-date and be able to continuously develop themselves and their work, pre-service teachers acquire new research-based knowledge and conduct practice-based research in an ethical manner in various networks concerning the development of education and teacher profession, innovative approaches to learning, as well as learning and guidance of students. Pre-service teachers adopt development-oriented mindset and are able to develop, update and apply innovative teaching approaches and technologies in the context of ongoing changes in society and the educational environment.</p>

	<p>Pre-service teachers design a small-scale research project to familiarize themselves with research-based development of their work as teachers. They identify their research topic/questions, conduct the literature review and design the methodology for the data collection and analysis, including ethical aspects of research. After the course, pre-service teachers are able to develop and update their pedagogical activities based on ethically conducted research and development and carry out or participate in research projects. They are also able to present their research and development results using various professional forms and channels.</p>
Learning outcomes	<p>Pre-service teachers who demonstrate competence can:</p> <ul style="list-style-type: none"> • evaluate their own professional activities and work environment to find areas for improvement; • apply a research-based approach to their professional activities and carry out independent research work; • consider and apply ethical aspects of research procedures; • apply critical thinking in data collection and utilization for the development of initial teacher education; • participate in scientific design research and / or develop cooperation between universities and stakeholders; • document their own research activities and present the results using various forms of communication.
<p>Teacher as a facilitator of learning(Pedagogical practice) 29 Academic credits</p>	
<p>This module focuses on the transformation of theoretical knowledge into practical skills through two pedagogical practice periods/courses, as well as the formation of a teacher's professional identity that meets the requirements of teaching profession today and in the future. During the module, pre-service teachers also establish practice-based research skills promoting the continuous process of professional growth.</p> <p>Pedagogical practice is organized in four periods/courses, one per study year, and each having their specific learning outcomes where the competences of pre-service teachers are progressively deepened from orientation and observation to designing educational processes and conducting own lessons, and developing own work environment through practice-based research activities.</p>	

Pre-diploma practice is a preparation for final certification and is carried out in order to deepen professional knowledge and conduct a pedagogical experiment within the framework of diploma research. Pre-diploma practice is carried out on the basis of educational organizations with a break from production.

All practice periods have some prerequisites and pre-service teachers must have completed a certain amount of subject and/or pedagogical studies before they can conduct their pedagogical practice, the number of credits may vary between the faculties and/or educational programmes.

Course title	Introduction to the teaching profession(1st year pedagogical practice)
Component	Pedagogical component
Cycle	Core disciplines
Module	Teacher as a facilitator of learning 29 Academic credits
Academic credits	2
Course / competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> • competence area for pedagogy and didactics (1, 2) • competence area for interaction (3, 4, 5) • competence area for teachers' work environment (6, 7) • competence area for professional development (8, 9, 10) <p>Pre-service teachers familiarize themselves with the educational process and the context of the educational institution and its adaptation to the conditions of future professional activity.</p> <p>The prerequisite for the course is that the Pre-service teachers have completed the courses "<i>Psychology in Education and Concepts of Interaction and Communication</i>" and "<i>Age and physiological features of the development of children</i>" of the pedagogical component before entering their first pedagogical practice.</p>
Learning outcomes	<p>Pre-service teachers who demonstrate competence can:</p> <ul style="list-style-type: none"> • understand the regulatory and legislative framework of the education system of the Republic of Kazakhstan, and the documents regulating educational institutions; • distinguish the main documents for maintaining school

	<p>records (work plans of the educational institution, Kundelik electronic diary, short-term, medium-term and long-term lesson planning, etc.);</p> <ul style="list-style-type: none"> comprehend the theoretical and applied aspects of pedagogy and educational psychology in the educational process at school considering social, age, psychophysical and individual characteristics of students, as well as their special educational needs.
Course title	Psychological and pedagogical assessment(2nd year pedagogical practice)
Component	Pedagogical component
Cycle	Core disciplines
Module	Teacher as a facilitator of learning 29 Academic credits
Academic credits	2
Course / competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> competence area for pedagogy and didactics (1, 2) competence area for interaction (3, 4, 5) competence area for teachers' work environment (6, 7) competence area for professional development (8, 9, 10) <p>Pre-service teachers familiarize themselves with the features of the integral pedagogical process of an educational institution and the formation of analytical-reflexive, research, design, and other skills in the field of psychological and pedagogical support of the educational process.</p> <p>The prerequisite for the course is that the Pre-service teachers have completed the course "<i>Pedagogical Research</i>" of the pedagogical component before entering their second pedagogical practice.</p>
Learning outcomes	<p>Pre-service teachers who demonstrate competence can:</p> <ul style="list-style-type: none"> comprehend the psychological and pedagogical foundations of teaching strategies (critical thinking, functional literacy, collaborative learning, self-education, self-improvement, criteria-based learning); apply psychological and pedagogical diagnostic methods to evaluate the needs of a group of students, and understand how the support processes of the student

	<p>welfare services function in schools;</p> <ul style="list-style-type: none"> • understand teacher's work from the socio-pedagogical aspect and reflect own professional identity as a future teacher; • establish effective dialogue to reinforce students' positive and responsible learning behaviours; • collaborate with all stakeholders of the educational process; • analyze and develop a holistic pedagogical process in its various forms (lesson, seminar, round table, debate, etc.), and conduct various forms of subject-related extracurricular activities.
--	---

Course title	Pedagogical approaches(3rd year pedagogical practice)
Component	Pedagogical component
Cycle	Core disciplines
Module	Teacher as a facilitator of learning 29 Academic credits
Academic credits	6
Course / competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> • competence area for pedagogy and didactics (1, 2) • competence area for interaction (3, 4, 5) • competence area for teachers' work environment (6, 7) • competence area for professional development (8, 9, 10) <p>During this course, pre-service teachers go through a comprehensive professional development where they improve in practice their professional practices and develop their pedagogical and subject-specific competences necessary for a teacher (preschool teacher, primary school teacher, subject teacher, assistant class teacher / curator).</p> <p>The prerequisite for the course is that the Pre-service teachers have completed the courses "<i>Methods and Technologies of Teaching</i>", "<i>Assessment and Development</i>", and "<i>Inclusive Educational Environment</i>" of the pedagogical component before entering their third pedagogical practice.</p>

Learning outcomes	<p>Pre-service teachers who demonstrate competence can:</p> <ul style="list-style-type: none"> • design and organize independently a constructive and inclusive educational process; • choose purposeful and suitable learning materials, innovative pedagogical approaches, and active teaching considering also the use of educational technologies and digital environments; • apply subject-specific knowledge and didactics; • apply formative and summative assessment methods and techniques, and support the development of students' reflection, self- and peer-assessment skills; • establish dialogical atmosphere with all stakeholders of the educational process to solve problems and conflict situations and to promote safe learning environment.
Course title	Research and innovation in education(4th year pedagogical practice)
Component	Pedagogical component
Cycle	Core disciplines
Module	Teacher as a facilitator of learning 29 Academic credits
Academic credits	15
Course / competence description	<p>The purpose of this course is to improve the following areas of pedagogical competence:</p> <ul style="list-style-type: none"> • competence area for pedagogy and didactics (1, 2) • competence area for interaction (3, 4, 5) • competence area for teachers' work environment (6, 7) • competence area for professional development (8, 9, 10) <p>The course focuses on establishing pre-service teachers' developmental approach towards their own professional activities and work environment. The course also emphasizes the development of pre-service teachers' collaborative, problem-solving and leadership skills. They deepen their pedagogical skills and develop research skills as well as practical skills (didactics) in accordance with their area of specialization.</p> <p>During this practice period pre-service teachers also collect and analyze data, test the hypothesis, or make experimentations according to the research plan created in the</p>

	<p>course “<i>Research, Development, and Innovation</i>”. They make conclusions and explore various forms and channels of communicating the research results in a professional manner.</p> <p>The prerequisite for the course is that the Pre-service teachers have completed the courses "<i>Teaching planning and individualization of learning</i>" and "<i>Research, development and innovation</i>" of the pedagogical component.</p>
Learning outcomes	<p>Pre-service teachers who demonstrate competence can:</p> <ul style="list-style-type: none"> • design and organize independently a constructive and inclusive educational process to test hypothesis, make pedagogical experimentations and/or collect data according to their research plan; • apply innovative teaching and learning strategies, and methods and tools for designing, conducting and assessing an educational process and/or extracurricular activities based on long-term, medium-term, short-term lesson / lesson plans, and educational and out-of-class activities in the subject; • analyze the results of their experimentations and/or data collected and draw conclusions; • document their research activities and present the results in a professional manner using various forms of communication; • evaluate their professional activities in relation to the activities of the organization and through experimentations and practice-based research create ideas for improvement of their work and their work environment.
Course title	Pre-diploma practice - 4th year
Component	Pedagogical component
Cycle	Core disciplines
Module	Teacher as a facilitator of learning 29 Academic credits
Academic credits	4
Course / competence description	Pre-diploma practice is a preparation for final certification and is carried out in order to deepen professional knowledge and conduct a pedagogical experiment within the framework of diploma research. Pre-diploma practice is carried out on the basis of educational organizations with a break from production.

Learning outcomes	<p>Learning outcomes: Upon completion of pre-diploma practice students will demonstrate the following professional competencies:</p> <ul style="list-style-type: none"> • Select ways of solving the problems of professional pedagogical activity, as applied to different contexts of preschool education • search for, analyze and interpret information necessary for conducting a thesis research. • Plan and implement their own professional and personal development and cooperation in the implementation of the diploma project • To conduct a pedagogical experiment, analyze and summarize its results for presentation and defense of the diploma work

4.2 Structure of the subject component

Module name and main disciplines	Academic credits
PSYCHOLOGICAL AND PEDAGOGICAL FOUNDATIONS OF EARLY DEVELOPMENT AND PRE-SCHOOL EDUCATION	22
University Component	17
Pedagogy and psychology of early childhood	6
Workshop on pre-school psychology	5
Pre-school Pedagogy	6
Optional Component	3
Games and play activities of modern preschoolers	3
Fundamentals of neuropedagogy	
MANAGING INNOVATIVE PROCESSES IN PRE-SCHOOL ORGANIZATION	25

University Component	10
Management in pre-school education	5
Socio-legal protection of early and pre-school childhood	5
Optional Component	15
Leadership in pre-school education	5
Entrepreneurial activity in pre-school education	
Educational process in a multi-age group of a pre-school mini-center	5
Organization of leisure activities in a pre-school organization	
Fundamentals of nutrition	5
Fundamentals of gamification	
DESIGNING CHILDREN'S REALIZATION SPACE	18
University Component	8
Design of a developmental environment for a pre-school organization	4
Social partnership of pre-school organization and family	4
Optional Component	10
Digitalization of childhood with the basics of pre-school student cybersecurity	5
Support for a pre-school student's initiative	
Author's systems and methods of development and education	5
Home and family education of pre-school students	
METHODS OF PEDAGOGICAL SUPPORT FOR CHILDREN OF EARLY AND PRE-SCHOOL AGE IN TERMS OF INTEGRATION	28
University Component	12
Communicative and speech development of children of early and pre-school age	6
Logical and mathematical development of pre-school Children	6
Optional Component	16
Sensory education at an early age	5
Socio-emotional development in early and pre-school age	
Ecological education of pre-school Children	6
Physical Education and Child Safety Culture	
Musical education of pre-school students	
Developing reading culture of pre-school Children	5
Artistic and aesthetic education of pre-school Children	
PEDAGOGICAL RESEARCH IN EARLY CHILDHOOD EDUCATION	19
University Component	9
Project activities in a pre-school organization	5

Monitoring in a pre-school organization	4
Optional Component	10
Workshop on exploring play subculture of pre-school children	5
Workshop on the study of modern material culture of childhood (toys)	
Ethics of pedagogical research in Pre-school education	5
Tools for a comprehensive assessment of the quality of pre-school education	
FINAL ATTESTATION	8
Total academic credits	120

Psychological and pedagogical foundations of early development and pre-school education 22 academic credits

Content of the module helps pre-service teachers learn the role of the game and play as the leading activity for children of early and pre-school age. Pre-service teachers master conceptual approaches and principles to the development, upbringing and education of children in early and pre-school childhood. They study the psychological features of the development of the child's personality and gain skills in using the game and play in the development and education of children of early and pre-school age on the example of Kazakhstani and foreign pedagogical experience in pre-school education.

Course title	Pedagogy and psychology of early childhood
Component	Subject component, University component
Cycle	Major disciplines
Module	Psychological and pedagogical foundations of early development and pre-school education 22 academic credits
Academic credits	6
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> Competence area for pedagogy and psychology of early and pre-school age (1,2) <p>During the course, pre-service teachers master the patterns of the relationship between the mental and physical development of a child in early childhood. Pre-service</p>

	teachers master the skills of practical activities for the successful socialization of a child in early childhood and improve their ability to provide psychological and pedagogical assistance and support in the care, upbringing, development and education of young children.
Learning outcomes	Pre-service teachers demonstrating competence can: <ul style="list-style-type: none"> • describe the psychological and pedagogical stages of development of children under the age of 3 years; • choose methods, techniques and means for the early development of toddlers; • organize monitoring of the development of children aged 1 to 3 years; • develop methodological recommendations on the sensorimotor and speech development of young children for teachers and parents; • create a subject-spatial developing environment for the positive socialization of children under 3 years old.

Course title	Workshop on pre-school psychology
Component	Subject component, University component
Cycle	Major disciplines
Module	Psychological and pedagogical foundations of early development and pre-school education 22 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (1,2) <p>Pre-service teachers gain knowledge about the methods of scientific research in child psychology and master the skills of using various methods for studying the main areas of personality (emotions and feelings, etc.) and cognitive abilities of preschool children (perception, attention,</p>

	memory, imagination, etc.), as well as the features of preschool children's interaction with peers and adults (adaptation, shyness, etc.) in gaming and other activities.
Learning outcomes	Pre-service teachers demonstrating competence can: <ul style="list-style-type: none"> • determine the stages of the study of the psyche of a child of preschool age; • apply the methods of psychological research of preschool children in the conditions of preschool organization and family; • generalize and interpret the results of diagnostics to correct the child's development; • be guided by the ethical principles of studying the child's psyche as a specific object of study.
Course title	Pre-school Pedagogy
Component	Subject component, University component
Cycle	Major disciplines
Module	Psychological and pedagogical foundations of early development and pre-school education 22 academic credits
Academic credits	6
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (1,2,3) ▪ Competence area for organizing and managing educational process in a pre-school organization (7) <p>Pre-service teachers study the patterns of development, upbringing and elementary education of children aged 3 to 6 years. They master the competencies in the formation of a basic culture of the personality of a preschooler using modern methods of education and training. They also learn to create a favorable environment for the development of the child's independence, taking into account their educational needs.</p>

Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • make a social portrait of a preschool child; • plan the organized activity of a preschooler as a game; • create a creative developmental environment for education and training in accordance with the educational needs, personality traits and family culture of a preschooler; • use modern methods of education and training for the comprehensive development of the personality of a preschool child; • analyze play and other activities of a preschooler through observation.
-------------------	--

Course title	Games and play activities of modern preschoolers
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Psychological and pedagogical foundations of early development and pre-school education 22 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (1,2) ▪ Competence area for designing a subject-spatial developing environment for a preschool organization (4) <p>Pre-service teachers demonstrate an understanding of the value of play for child development and ensure the child's right to play. They learn to provide pedagogical support for gaming activities in a preschool organization, in the family, and in places of leisure for children in cities and rural areas. They also learn to provide preschoolers with the opportunity to choose the type of game for their self-expression and creative activity. Pre-service teachers learn to create conditions for children's play initiative.</p>

Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> ▪ create an enabling environment that allows children to play freely and creatively and enjoy playing in organized and independent activities; ▪ provide the possibility of play interaction between children of different ages, nationalities, physical and intellectual abilities; ▪ use traditional national outdoor games to expand the gaming practice of preschoolers; ▪ steer children's and parents' choice of games and toys against those that provoke violence and aggression; ▪ provide support for games initiated by the child (team, role-playing, theatrical, directing, etc.); ▪ provide a variety of game subject-spatial developing environment; ▪ to observe the game of children and analyze the game situation; ▪ conduct questionnaires and surveys among parents to develop the child's play practice at home
-------------------	---

Course title	Fundamentals of neuropedagogy
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Psychological and pedagogical foundations of early development and pre-school education 22 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (1,2) <p>Pre-service teachers develop their competencies in implementing student-centered approach in preschool education to increase the learning abilities of a child. Pre-service teachers learn to regulate a child's behavior through the impact on their senses (vision, hearing, touch, etc.) as well as their emotional state in the process of education</p>

	and training.
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • characterize the main provisions of neuropedagogy; • explain neuropedagogy as a related science which integrates knowledge of pedagogy, educational psychology and the fundamentals of neuropsychology; • use the obtained integrated psychological-pedagogical and neuropsychological knowledge for pedagogical support and organization of educational environment taking into account brain development of a child, their sex and age; • use some methods and techniques of psychodiagnostics of the personality of a child in early childhood and preschool age; • create an atmosphere in a group of pupils by using neuro-pedagogical knowledge and provide pupils with the freedom to choose their activities.

Managing innovative processes in pre-school organization 25 academic credits

Pre-service teachers learn about innovation management in pre-school education as a creative activity and study the principles and functions of planning to ensure the unity of developing, educational goals and objectives in the holistic pedagogical process of a pre-school organization. Pre-service teachers master the skills in organizing the educational process based on the integration of all types of activities. They learn about the functions of the manager of a pre-school organization such as basics of time management, the procedure for organizing the activities of mini-centers and other types of pre-school institutions to ensure the availability and variability of pre-school education.

Course title	Management in pre-school education
Component	Subject component, University component
Cycle	Major disciplines
Module	Managing innovative processes in pre-school organization 25 academic credits
Academic	5

credits	
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> Competence area for organizing and managing educational process in a pre-school organization (6) <p>Pre-service teachers master the management culture and management skills to solve methodological, financial, and economic issues of a preschool organization to ensure sustainable development and to improve the quality of educational services.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> determine the structure and functions of managing a preschool organization; comply with the job descriptions of teachers, improving their duties, rights and responsibilities; develop an annual plan for a preschool organization; draw up a nomenclature of cases in a preschool organization and its content in accordance with the Rules for Documentation, Documentation Management and the Use of Electronic Document Management Systems; use ICT and "time management" technologies for effective management of the educational process in a preschool organization; carry out effective interaction with the pedagogical community and social partners.
Course title	Socio-legal protection of early and pre-school childhood
Component	Subject component, University component
Cycle	Major disciplines
Module	Managing innovative processes in pre-school organization 25 academic credits
Academic credits	5

Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for organizing and managing educational process in a pre-school organization (7) ▪ Competence area for self-development of the personality of a teacher of a pre-school organization (12) <p>Pre-service teachers master the skills of social protection and the provision of legal and volunteer assistance to orphans and children left without parental care. They also learn to provide social protection and legal and volunteer assistance to children from dysfunctional and destructive families, to child victims of armed conflicts, and environmental and man-made disasters, as well as to children from refugee and migrant families.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • comply with the principles of international legal acts (Declaration of the Rights of the Child, 1959; Convention on the Protection of Rights, 1989, etc.) and the state policy of the Republic of Kazakhstan in the field of child protection; • apply regulatory and legal support in the system of preschool education to comply with the requirements of the legislation of the Republic of Kazakhstan in the field of protection of the rights of the child; • introduce methods and forms of social and legal protection of preschool childhood in work with the families of pupils; • organize events aimed at social and legal education of teachers and parents; • hold charity events in support of children in difficult life situations and their families.
Course title	Leadership in early childhood education
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Managing innovative processes in pre-school organization 25 academic credits

Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> Competence area for self-development of the personality of a teacher of a pre-school organization (12,13,14) <p>During the course, pre-service teachers develop their leadership potential and qualities. The acquired competencies allow pre-service teachers to consciously choose a leading strategy and develop an individual style of leadership in their professional activities.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> use personal time management tools in work; organize project, volunteer and other activities; participate in competitions of professional skills; build communication with all participants in the educational process in a preschool organization; participate in trainings on the development of emotional intelligence; manage stressful situations: conflicts, non-standard situations in the team.

Course title	Entrepreneurial activity in pre-school education
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Managing innovative processes in pre-school organization 25 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> Competence area for organizing and managing educational process in a pre-school organization (6) <p>Pre-service teachers receive the necessary knowledge and</p>

	skills to ensure the availability and variability of high-quality preschool education. They also learn to provide various kinds of additional educational services to meet the needs of parents in developing the physical, creative and intellectual abilities of the child.
Learning outcomes	Pre-service teachers demonstrating competence can: <ul style="list-style-type: none"> • be guided by provisions and regulatory legal acts in the field of private entrepreneurship and public-private partnership in the field of pre-school education of the Republic of Kazakhstan; • develop a business plan for opening a pre-school organization; • develop a web page in a social network to promote the educational services of a preschool organization; • provide additional educational services aimed at meeting the interests of children, the needs of the family; • promote healthy competition in the market of educational services.

Course title	Educational process in a multi-age group of a pre-school mini-center
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Managing innovative processes in pre-school organization 25 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (2,3) ▪ Competence area for designing a subject-spatial developing environment for a preschool organization (4) ▪ Competence area for organizing and managing educational process in a pre-school organization (7)

	Pre-service teachers master the skills of organizing all types of activities for children of early and preschool age in a joint group/activity taking into account their educational needs.
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • plan the daily routine and organized activities in a group of different ages (perspective plan, cyclogram), taking into account the age and individual characteristics of children; • carry out pedagogical support for pupils of a different age group in joint play activities; • use frontal, group and individual forms of organizing all types of activities to create an atmosphere of cooperation and co-creation between children of different ages; • analyze, on the basis of observation of the joint gaming and other activities of pupils, the advantages and disadvantages of the developing environment in order to optimize the process of education and training; • develop individual routes for the development or self-development of the skills of children of all ages; • provide advice to parents of children attending a mixed-age group.
Course title	Organization of leisure activities in a pre-school organization
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Managing innovative processes in pre-school organization 25 academic credits
Academic credits	5

Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> Competence area for designing a subject-spatial developing environment for a preschool organization (4,5) Competence area for organizing and managing educational process in a pre-school organization (7) <p>Pre-service teachers master methodological approaches to organizing various types of activities in the process of leisure interaction of pupils with adults and peers both inside and outside the preschool organization during the school year and during the summer recreation period.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> use various forms of leisure activities for preschoolers to meet their cognitive interests and develop individual creative abilities; develop a plan of joint activities with parents aimed at the physical, creative and cognitive development of children; organize the work of a theater group, art studio, sports or tourism section; develop an excursion route (to the museum, to nature, to the workplace of parents or production, to the sights of the place of residence, etc.).

Course title	Fundamentals of nutrition
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Managing innovative processes in pre-school organization 25 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> Competence area for self-development of the personality of a teacher of a pre-school organization (11)

	Pre-service teachers learn the principles of healthy eating to develop their competencies in assisting and correcting nutrition and eating habits. By avoiding the risks of malnutrition and unhealthy lifestyle in kindergarten and at home, pre-service teachers learn to improve the quality of life of preschool children.
Learning outcomes	Pre-service teachers demonstrating competence can: <ul style="list-style-type: none"> • analyze the kindergarten menu to include essential nutrients, vitamins, minerals in the diet of pupils; • give the necessary recommendations to parents and teachers on the diet and choice of a dietary table for children with chronic or seasonal diseases; • keep a child's food diary with parents and a dietitian; • develop checklists, instructions, online courses for parents on the formation of proper eating habits in children; • advise parents on the prevention of obesity, the correct choice and dosage of vitamins, compliance with the drinking regimen

Course title	Fundamentals of gamification
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Managing innovative processes in pre-school organization 25 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (3) ▪ Competence area for designing a subject-spatial developing environment for a preschool organization (4) ▪ Competence area for organizing and managing educational process in a pre-school organization (7)

	Pre-service teachers master non-traditional methods, techniques and technologies for activating the game and cognitive activities of children at the stage of pre-school preparation by using interactive forms, information, communication and multimedia resources.
Learning outcomes	Pre-service teachers demonstrating competence can: <ul style="list-style-type: none"> • use gamification techniques for teaching preschoolers; • structure the process of gamification in teaching preschoolers (scoring system, achievement level); • organize a web quest to increase the child's cognitive activity when studying a cross-cutting topic; • develop electronic methodological resources to accompany the game with elements of gamification (instruction, route sheet)

Designing children's realization space 18 academic credits

Pre-service teachers study modern approaches to designing the educational environment of a pre-school organization as a socio-cultural space to support the child in his interaction with the outside world. They also learn about the functions of the environment for subject-spatial development (developing, inclusive, etc.) and gain knowledge about the components of the environment for subject-spatial development (subject content, its spatial organization and their changes over time). They learn to consider the interests, preferences and needs of pupils, parents and teachers when designing environmentally friendly educational environment.

Course title	Design of the developmental environment of a pre-school organization
Component	Subject component, University component
Cycle	Major disciplines
Module	Designing children's realization space 18 academic credits
Academic credits	4
Course / competence description	The purpose of this course is to improve the following areas of subject competence:

	<ul style="list-style-type: none"> Competence area for designing a subject-spatial developing environment for a preschool organization (4) Competence area for research and evaluation of the quality of early childhood education (9) <p>During this course, pre-service teachers study the functions of the subject-spatial developing environment in a preschool organization. They learn about the regulatory requirements related to e.g. sanitary or epidemiological conditions. They also learn to design age- and activity specific and barrier-free playing spaces in collaboration by involving children and parents.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> determine the functions of the subject-spatial developing environment of a preschool organization; comply with the sanitary and epidemiological requirements for the conditions of education and training of a preschool organization; carry out zoning of the playing space, taking into account the age and educational needs of the pupils; create an ecological developing barrier-free environment for self-realization of the child in various activities; involve children and parents in creating space for folk mobile, theatrical and other types of games.

Course title	Social partnership between pre-schools and families
Component	Subject component, University component
Cycle	Major disciplines
Module	Designing children's realization space 18 academic credits
Academic credits	4
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> Competence area for designing a subject-spatial developing environment for a preschool organization (5)

	<ul style="list-style-type: none"> Competence area for research and evaluation of the quality of early childhood education (9) <p>Pre-service teachers master the competencies for developing various trajectories of interaction between a preschool organization and various types of families. Based on respect, trust and equality, pre-service teachers learn to apply innovative forms of family support, including those families with children with special educational needs.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> explain and discuss with parents in a timely manner about the content and results of the child's development, upbringing and education to maintain the policy of openness of the preschool organization in cooperation with the family; develop an individual development plan for the child together with parents; analyze with parents the issues of concern related to a child's well-being; plan various forms of interaction with the families (projects, excursions to the workplace of parents, organization of a sports contest, concert, performance with the participation of parents, etc.); maintain ethical standards when interacting with parents.

Course title	Digitalization of childhood with the basics of pre-school student cybersecurity
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Designing children's realization space 18 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> Competence area for pedagogy and psychology of early and pre-school age (1)

	<ul style="list-style-type: none"> Competence area for designing a subject-spatial developing environment for a preschool organization (5) <p>Pre-service teachers develop their skills in practical implementation of ideas for the establishment of the information culture of modern preschoolers in the educational space of the preschool organization and the family, taking into account the safety of the child's life.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> choose effective and safe ICT, media and Internet resources for the development and learning of preschoolers; consult with parents on the correct use of the developmental potential of computer games and to prevent risks for the child in cyberspace (cyberbullying, aggression, Internet addiction, viewing age-inappropriate content, deterioration in health, contact with strangers, etc.); develop together with parents and children Rules for the use of computers and gadgets in kindergarten and at home.

Course title	Support for a pre-school student's initiative
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Designing children's realization space 18 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> Competence area for pedagogy and psychology of early and pre-school age (2,3) Competence area for organizing and managing educational process in a pre-school organization (7) <p>During the course, pre-service teachers develop their competences in supporting children's initiative in the game,</p>

	the child's independent choice of the type of activity, and the development of self-esteem (healthy pride) in the pupil.
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • Encourage children's self-reliance and independence, while at the same time giving them confidence that they will always receive support and assistance when needed; • show respect for the experiences and views of children; • promote the development of friendly relations between children that arise in the process of choosing a joint game; • use interactive methods and integrated forms of work to support children's interest and curiosity in creative, research and other activities, thereby encouraging them to experiment, self-expression and self-development.

Course title	Author's systems and methods of development and education
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Designing children's realization space 18 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (2) ▪ Competence area for designing a subject-spatial developing environment for a preschool organization (4,5) ▪ Competence area for organizing and managing educational process in a pre-school organization (7) <p>Pre-service teachers learn to master the approaches, methods and techniques of traditional and innovative authors in early development and learning research (such as</p>

	R. Steiner, Z. Gyenes, M. Montessori, J. Dewey, F. Froebel and others).
Learning outcomes	Pre-service teachers demonstrating competence can: <ul style="list-style-type: none"> • apply the author's methods and techniques of development and learning in organized activities with children of early and preschool age; • enrich the subject-spatial developing environment of a preschool organization, using the didactic materials of Montessori, Gyenes, Kuizener, etc. to develop sensorimotor and speech skills, logical and spatial thinking in pupils; • organize an exchange of experience between colleagues and parents on the use of author's methods of development to improve own professional competences.

Course title	Home and family education for pre-school students
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Designing children's realization space 18 ECTS academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (2,3) ▪ Competence area for designing a subject-spatial developing environment for a preschool organization (5) <p>Pre-service teachers develop their skills in providing</p>

	psychological and pedagogical support to parents in the organization of family education. They also learn personality-oriented and differentiated approaches in providing advisory assistance and methodological support on issues of home education for preschool children.
Learning outcomes	Pre-service teachers demonstrating competence can: <ul style="list-style-type: none"> • introduce the traditions of family education into the practice of preschool education; • develop together with parents "Rules of family education"; • provide advisory support to parents when choosing an alternative form of homeschooling for preschoolers: tutoring, tutoring, online school; • organize homeschooling for a child with special educational needs; • plan for conducting and content of consultations for parents on the issues of socialization of the child, accompanying the play activities of children of early and preschool age in the family, preparation for school.

Methods of pedagogical support for children of early and pre-school age in terms of integration 28 academic credits

Pre-service teachers study the sequence of actions of the teacher in choosing games, methods and techniques to support pupils in gaming activities and other activities. They learn to choose didactic means for the development of cognitive interest, motivation, activation and effectiveness of all types of activities of the child based on the integration of all types of activities of children of early and pre-school age and taking into account the principles of inclusive pre-school education.

Course title	Communicative and Speech Development of Early Childhood and Pre-school Children
Component	Subject component, University component
Cycle	Major disciplines
Module	Methods of pedagogical support for children of early and pre-school age in terms of integration 28 academic credits
Academic	6

credits	
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (2,3) ▪ Competence area for organizing and managing educational process in a pre-school organization (7) ▪ Competence area for self-development of the personality of a teacher of a pre-school organization (12) <p>With the help of interactive teaching methods, gaming technologies and modern online tools and services used in the practice of preschool organizations, pre-service teachers learn to master advanced pedagogical practices and innovative methods and approaches for the development and correction of communication and speech skills of children in early and preschool age in a preschool organization and families.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • plan and implement organized activities for the development of speech and literacy; • encourage the child to situational communication with adults and peers, using traditional and innovative methods and technologies for developing communication skills; • encourage children to communicate by answering all the questions of pupils; • support the child's desire for creative games with words, for staging fairy tales, writing stories during sensitive moments and free play; • use the possibilities of the subject-spatial developing environment to familiarize the child with both oral and written speech; • hold theatrical performances and holidays together with parents
Course title	Logical and mathematical development of pre-school children

Component	Subject component, University component
Cycle	Major disciplines
Module	Methods of pedagogical support for children of early and pre-school age in terms of integration 28 academic credits
Academic credits	6
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and psychology of early and pre-school age (2,3) • Competence area for the organization and management of the educational process in a pre-school organization (7) • Competence for self-development of pre-school teachers (11) <p>Pre-service teachers develop their competences in developing cognitive abilities in preschoolers in the process of forming elementary mathematical concepts and performing simple logical operations. They learn to ensure continuity between the stages of familiarizing a preschooler with the basics of mathematics and logic in kindergarten and master the exact sciences in elementary school.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • plan organized activities for the logical and mathematical development of preschoolers; • apply methods, techniques and means to form a sustainable cognitive interest of preschoolers in logic and mathematics; • conduct didactic games and games with rules to develop the child's skills of independent research, construction and experimentation; • ask appropriate questions, listen to children's individual answers using mathematical terms; • use various didactic materials and ICT to enhance the cognitive activity of the child in the daily routine and in free play

Course title	Sensory education at an early age
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Methods of pedagogical support for children of early and pre-school age in terms of integration 28 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and psychology of early and pre-school age (2) • Competence area for designing educational environment of a pre-school organization (4,5) <p>During the course, pre-service teachers develop practice-oriented approaches to solving problems of sensory education of young children through the generalization of pedagogical experience in the development of sensory knowledge of the world around the child.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • to characterize the main stages in the development of sensory standards by the child in early and preschool childhood; • create interactive situations during the day, give small tasks to pupils to study the playing space to enrich the sensory experience; • promote independent observation, research, experimentation of a young child with the help of leading questions; • apply didactic exercises and techniques to develop sensorimotor skills; • educate with the help of finger games interest in the properties of objects.

Course title	Social-emotional development in early childhood and pre-school age
Component	Subject component, Optional component

Cycle	Major disciplines
Module	Methods of pedagogical support for children of early and pre-school age in terms of integration 28 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and psychology of early and pre-school age (2,3) • Competence area for designing educational environment of a pre-school organization (4) • Competence area for research and evaluation of the quality of early childhood education (10) <p>Pre-service teachers develop their competences in the field of social and emotional development of children in early and preschool age based on professional approaches to the development of critical thinking skills, creativity, positive communication with adults and peers, demonstration of emotional intelligence and teamwork skills of children in early and preschool age.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • demonstrate skills in introducing pre-school children to the world around them; • develop in children a sense of patriotism, respect for the history and culture of the motherland; • introduce children to the national values of the Kazakh people and family values, through the formation of the child's image of "I", • develop pupils' skills of joint action in collective activities (assistance to peers, evaluation of work results, etc.); • educate the child respect for the professions, the work of adults; • develop a child's emotionally positive attitude towards school; • use innovative didactic materials to develop children's social skills and the ability to recognize and understand emotions; • evaluate, self-evaluate and mutually evaluate the

	activities of teachers in the social and emotional development of pupils based on the analysis of monitoring results.
Course title	Ecological education of pre-school children
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Methods of pedagogical support for children of early and pre-school age in terms of integration 28 academic credits
Academic credits	6
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and psychology of early and pre-school age (1) • the organization and management of the educational process in a pre-school organization (7) • Competence for self-development of pre-school teachers (11) <p>Pre-service teachers learn to master the skills in forming the ecological behavior of preschoolers when they are at home, on vacation, on a walk, or in various activities. They learn to implement an integrated approach to the environmental education of preschoolers through the use of methods of moral, artistic, aesthetic and labor education.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • apply innovative methods and forms of ecological education of preschoolers; • develop a mini-project on education of ecological culture among preschool children; • organize an ecological trail on the territory of the kindergarten or, with the help of parents, outside it; • develop within the framework of "industrial tourism" a route for excursions to enterprises using "green" technologies; • create a "living corner" in the group;

	<ul style="list-style-type: none"> • conduct observations, experiments and experiments with preschoolers to develop a cognitive interest in animate and inanimate nature; • hold creative contests of crafts from recycled materials and natural materials among pupils and parents
Course title	Physical education and child safety culture
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Methods of pedagogical support for children of early and pre-school age in terms of integration 28 academic credits
Academic credits	6
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and psychology of early and pre-school age (2) • Competence area for designing educational environment of a pre-school organization (4) • Competence area for the organization and management of the educational process in a pre-school organization (7) <p>Pre-service teachers develop their skills and abilities in realizing the main task of preschool education and training - protecting the life and strengthening the health of pupils in a preschool organization - through the upbringing of a physically developed child and the formation of the foundations of a healthy lifestyle and safe behavioral skills.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • use outdoor games, including national ones, when carrying out organized physical culture activities; • support children's independent physical activity during regime moments and in free play; • select effective means of physical education (natural forces of nature, hygiene factors, etc.) to comply with

	<p>the mode of physical activity and the mode of hardening the child;</p> <ul style="list-style-type: none"> • organize sports and recreational activities with the families of pupils; • conduct conversations and consultations with parents on the safe behavior of the child at home and on the street as a child's social readiness for schooling
Course title	Musical education of pre-school students
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Methods of pedagogical support for children of early and pre-school age in terms of integration 28 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and psychology of early and pre-school age (2) • Competence area for designing educational environment of a pre-school organization (4) <p>Pre-service teachers develop their skills in musical education and development of musical abilities of preschoolers by creating favorable conditions for musical and rhythmic activities, listening and perceiving music in the daily routine. They learn to sing and play children's musical instruments in organized activities.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • support children's aspirations for children to acquire experience in creative musical activity and self-expression in music; • use musical works in organized activities and in the daily routine for the development of emotional intelligence and musical taste in children; • to develop pupils' musical abilities in five main types of musical activity (listening, musical movement,

	<p>singing, playing musical instruments, musical improvisation game);</p> <ul style="list-style-type: none"> organize various events in order to present the results of the creative musical activity of pupils(vocal contest, song contest for children composed by teachers and parents, etc.); promote cooperation with local cultural institutions.
Course title	Developing reading culture among pre-school children
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Methods of pedagogical support for children of early and pre-school age in terms of integration 28 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> Competence area for pedagogy and psychology of early and pre-school age (2) Competence area for designing educational environment of a pre-school organization (4) Competence area for the organization and management of the educational process in a pre-school organization (7) <p>Pre-service teachers develop their skills in using the methods and techniques of literary education and the development of the reading culture of preschoolers. They learn to promote preschoolers reading and perception of oral folk art and fiction.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> make a choice of works for reading with children of early and preschool age, taking into account their interests, preferences and age; create an age-appropriate children's library in the kindergarten to provide a positive experience of learning about the environment and a reading culture; memorize the elements and works of oral folk art of

	<p>the peoples of Kazakhstan, corresponding to the level of perception of the child;</p> <ul style="list-style-type: none"> • support the child's desire to independently look at the illustrations in the books and comment on their content; • carry out organized activities in fiction using interactive methods and techniques to introduce the child to reading (conversation, expressive reading, creative storytelling, etc.); • involve parents in the formation of a book corner in kindergarten; • hold consultations with the parents of pupils on the organization of home reading.
Course title	Artistic and aesthetic education of pre-school children
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Methods of pedagogical support for children of early and pre-school age in terms of integration 28 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and psychology of early and pre-school age (2) • Competence area for designing educational environment of a pre-school organization (4) <p>During the course, pre-service teachers develop their knowledge about the means of artistic and aesthetic education of preschoolers and the features of children's fine arts. They learn modern art technologies, methods, and techniques for developing creative abilities and skills of children in early and preschool age as well as children with special educational needs.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • introduce children to the best examples of Kazakh

	<p>and world art;</p> <ul style="list-style-type: none"> • plan organized activities for the development of creative skills, guided by the various creative ideas and enthusiasm of children; • provide children with the opportunity to independently choose the type of creative activity in organized activities: modeling, drawing, appliqué, crafts made from natural materials, etc.; • hold exhibitions of products of children's creativity; • use art therapy methods and techniques for working with children with special educational needs; • organize visits to the theater, museums, concerts to expand the artistic and aesthetic educational space of the kindergarten.
--	--

Pedagogical Research in Early Childhood Education 19 academic credits

The module provides for the gradual development of a research culture among pre-service teachers from diagnosing the development of skills and abilities of pupils to assessing the quality of a preschool organization. Pre-service teachers apply reflection and self-reflection and conduct independent scientific and pedagogical research taking into account the principles of the Code of Researchers of Kazakhstan.

Course title	Project activities in a pre-school organization
Component	Subject component, University component
Cycle	Major disciplines
Module	Pedagogical Research in Early Childhood Education 19 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> • Competence area for pedagogy and psychology of early and pre-school age (1) • Competence area for designing a subject-spatial developing environment for a preschool organization (5)

	<ul style="list-style-type: none"> • Competence area for the organization and management of the educational process in a pre-school organization (7) • Competence for self-development of pre-school teachers (12) <p>During the course, pre-service teachers develop their skills in the design and implementation of project activities in the educational process of a preschool organization to create a creative or information product in joint activities with pupils, their parents and / or with social partners of a preschool organization.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • provide students with an independent choice of the topic of the project; • determine the goals and objectives of the project for the implementation of productive, creative, research activities with pupils and their parents; • develop evaluation criteria (taking into account self-evaluation and mutual evaluation) of the project to determine its effectiveness by all project participants; • manage project resources (time, funds, materials, etc.); • analyze and present the results of project activities through exhibitions and publications; • create a collaborative environment for effective interaction of all participants in project activities in a preschool organization.

Course title	Monitoring in a pre-school organization
Component	Subject component, University component
Cycle	Major disciplines
Module	Pedagogical Research in Early Childhood Education 19 academic credits
Academic credits	4

Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (1) ▪ Competence area for research and evaluation of the quality of early childhood education (9,10) <p>Pre-service teachers learn skills in monitoring the development of children's skills and abilities at different stages to provide pedagogical support to the individual development of the child and correct their skills based on the results obtained.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • objectively monitor the achievements of children; • provide an individual approach to the upbringing and development of a preschool child; • to monitor the development of the pupil's skills using the methods of obtaining monitoring results: observation, conversation, analysis of the products of children's activities, creation of a diagnostic situation; • use the methodology for calculating the level of development of skills and abilities in children of early and preschool age; • fill in the Observation Sheet for the results of diagnostics of the initial, intermediate and final types of control, using the indicators of children's assimilation of the content of the Model Curriculum of Preschool Education and Training; • fill in the electronic Individual Development Card of the child to determine the level of mastering the content of the Standard Program by the child.
Course title	Workshop on exploring play subculture of pre-school children
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Pedagogical Research in Early Childhood Education 19 academic credits

Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (1) ▪ Competence area for research and evaluation of the quality of early childhood education (8) <p>Pre-service teachers by using various empirical methods learn research skills necessary to study various types of children's subculture in their professional activities and understand their importance for the process of socialization of preschoolers.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • master the system of concepts necessary to characterize the children's subculture; • characterize the main components of the childhood subculture and name the conditions for its self-development; • apply empirical methods to study the components of the gaming subculture of preschoolers (children's language (coding, traditions of the place of residence, collecting, etc.); • to analyze the results of the study of the subculture of preschoolers in order to develop methodological recommendations to accompany the process of mastering the cultural space and social experience by children; • put forward ideas and hypotheses to continue the study of children's subculture as a social phenomenon in professional and scientific activities
Course title	Workshop on study of modern material culture of childhood (toys)
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Pedagogical Research in Early Childhood Education 19

	academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (1) ▪ Competence area for research and evaluation of the quality of early childhood education (8) ▪ Competence area for self-development of the personality of a teacher of a pre-school organization (14) <p>Pre-service teachers by using various empirical methods learn research skills necessary to study the toy as an important attribute of childhood and a means of developing and educating a child's personality at an early and preschool age.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • conduct an examination (social, psychological, pedagogical, sanitary and hygienic) of developing, didactic, soft and other toys to assess the effectiveness of their use in the child's play practice; • conduct a comparative analysis of folk toys to determine their pedagogical expediency and didactic value; • find out the preferences of today's children in the choice of toys based on observation of the child's play, a survey of specialists from the childhood industry, conversations with teachers and parents; • present the results of the study of the material culture of modern childhood through the writing of a scientific article, abstract, essay, report • create a toy together with the children for a game, if necessary
Course title	Ethics of Pedagogical Research in Pre-school education
Component	Subject component, Optional component

Cycle	Major disciplines
Module	Pedagogical Research in Early Childhood Education 19 academic credits
Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (1) ▪ Competence area for research and evaluation of the quality of early childhood education (8,9) <p>Pre-service teachers learn to collect data on self-assessment of quality in preschool organizations using the integrated assessment of the quality of preschool education, including the "Early Childhood Environmental Assessment Scale" - ECERS, in the interests of sustainable development of the preschool organization.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • identify quality indicators for early childhood education for self-assessment through data collection; • collect data on self-assessment of quality in preschool organizations using integrated assessment tools; • use the data collected during the self-assessment process to form a rating of the quality of preschool organizations in the region

Course title	Tools for comprehensive assessment of the quality of pre-school education
Component	Subject component, Optional component
Cycle	Major disciplines
Module	Pedagogical Research in Early Childhood Education 19 academic credits

Academic credits	5
Course / competence description	<p>The purpose of this course is to improve the following areas of subject competence:</p> <ul style="list-style-type: none"> ▪ Competence area for pedagogy and psychology of early and pre-school age (1) ▪ Competence area for research and evaluation of the quality of early childhood education (8) ▪ Competence area for self-development of the personality of a teacher of a pre-school organization (14) <p>After the course, pre-service teachers are able to give recommendations on the correct choice and ethical application of research methods and tools in preschool education.</p>
Learning outcomes	<p>Pre-service teachers demonstrating competence can:</p> <ul style="list-style-type: none"> • characterize international experience (tools) to assess the quality of pre-school education; • formulate their own judgment about quality assessment in modern models of Kazakhstani and foreign pre-school education based on the analysis of expert opinion in different sources of information; • analyze the content of the educational process of a pre-school organization in the context of quality assessment in order to develop predictive skills and skills of quality management of a pre-school organization; • use diagnostic tools to assess the quality of pre-school education based on quality assessment criteria in Kazakhstani and international practice; • create interactive groups or projects to study the resource provision of pre-school organization or other indicators in the context of quality assessment of pre-school education to ensure equal access of pre-school children to quality education and meeting parental demands for quality services by pre-school organizations; • publish reports or scholarly articles on the results of quality assessment of early childhood education for

	sustainable development.
FINAL ATTESTATION 8academic credits Final attestation of the graduate is mandatory and is carried out after mastering the educational programme in full. The aim of the attestation is to evaluate the level of maturity of general cultural and professional competences of the graduate, as well as their readiness to perform basic professional activities. Final attestation work (Oral Exam, Written Exam, Diploma work, Research project, Development project, Organisational project, Strategic project, Art project)	
4.3 The structure of the compulsory component The Compulsory Component (Cycle of General Education Studies) consists of 56 academic credits (51 academic credits mandatory studies and 5 academic credits optional studies) and includes the following modules and courses.	
Name of modules and courses	Academic credits
COMPULSORY COMPONENT (CYCLE OF GENERAL EDUCATION STUDIES)	56
MANDATORY STUDIES	51
Module of historical and philosophical competencies	10
<i>History of Kazakhstan</i> Kazakhstan in Ancient and Medieval Times. Prehistoric society. Settlements, economy, and household (2.5 million - 12 thousand B.C. - 4th century). Ethnogenesis of Kazakh nation. Medieval Kazakhstan (IV-XV cc.). Kazakh Khanate. Geopolitical position of the Kazakh state. Kazakh Khanate: formation, rise, decline. Social history (mid- XV - beginning XVIII cc.). Kazakhstan in a colonial period (30-40s of XVIII - 60s XIX cc). Kazakhstan in the beginning of XX century. Formation of a poly-ethnic structure of the population. Kazakhstan in the Soviet period (February-October, 1917 - August, 1991) Kazakhstan - Independent State. The Modern period in the country's history (December 1991 - up to the present).	5
<i>Philosophy</i> Origins of a culture of thinking. The subject and method of philosophy. Foundations of philosophical understanding of the	5

world. Consciousness, spirit and language. Ontology and metaphysics. Ethics. Philosophy of values. Philosophy of freedom. Philosophy of art. Society and culture. Philosophy of history. Philosophy of religion. Philosophy of modern Kazakhstan.	
Module of socio-political knowledge (sociology, political studies, cultural studies, psychology)	8
<i>Sociology</i> Sociological studies in understanding the social world. Sociological research. Social structure and stratification of society. Socialization and identity. Family and modernity. Deviation, crime, social control. Religion, culture, society. Sociology of ethnicity and the nation. Education and social inequality. Mass media, technology and society. Economics, globalization, labor. Health and medicine. Population, urbanization, and social movements. Social change.	2
<i>Political studies</i> Main stages in the development of political science. Politics as part of social life. Political power. Political elites, leadership. Political system of society. State and civil society. Political regimes. Electoral systems, elections. Political parties, party systems and socio-political movements. Political culture, behavior. Political consciousness, ideology; development, modernization; conflicts and crises. World politics, modern international relations.	2
<i>Cultural studies</i> Morphology of culture. Language of culture. Semiotics of culture. Anatomy of culture. Nomadic culture. Cultural heritage of proto-Turks. Medieval culture. Central Asia. Cultural heritage of Turks. Basis of the Kazakh culture. Kazakh culture in the XVIII - end of XIX century, XX century. Kazakh culture in the context of modern world processes, and in the context of globalization. Cultural policy of Kazakhstan. State program "Cultural heritage".	2
<i>Psychology</i> Personality in the context of national consciousness. Me and my motivation. Emotions, emotional intelligence. Human will, psychology of self-regulation. Individual-typological features. Values, interests, norms. Psychology of the meaning of life, professional self-determination, health. Communication between individuals and groups. The perceptive side of communication. The interactive side of communication. The communicative side of communication. Social and psychological conflict. Patterns of behavior in conflict. Effective communication	2

techniques	
Instrumental and communication module	25
<i>Russian /Kazakh language</i> Proficiency in accurate use of vocabulary, scientific terms, syntactic constructions in oral and written communication; conversation skills. Business communication, letter-writing, report-writing, review, essay-writing skills; meaningful reading of texts, ability to express own idea. Fluent speaking in various conversations, mastering the ability to carry on a conversation, discussion. Functional styles of speech as a historically developed system of speech means, a variety of literature language.	10
<i>Foreign language</i> Social and domestic sphere of communication. Me and my family. Social and cultural sphere of communication. World map. Customs and Traditions. Educational and professional sphere of communication: Future profession. A modern home. Family in modern society. Cultural and historical background. Education. Profession. Human and nature, environmental problems. News, media, advertising.	10
<i>Information and communication technologies</i> ICT role in society development. Standards in ICT. Introduction to computer systems. Software. Operating systems. Human-computer interaction. Database systems. Data analysis. Data management. Networks and telecommunications. Cybersecurity. Internet technologies. Cloud and mobile technologies. Multimedia technologies. Smart technology. E-technologies. E-business. E-learning. E-government. ICT in industries. Prospects of ICT development.	5
Health Promotion module	8
<i>Physical education</i> Principles of physical education. Scientific basis of physical education. Modern recreational systems, basics of body physical state monitoring. Main methods of practicing sports and physical education independently. Professional physical training. General physical training. Speed. Running. Relay races. Execution of exercises for: endurance, flexibility, agility, coordination, balance, gymnastic and acrobatic exercises. Strength. General training exercises. Special physical training.	8
OPTIONAL COMPONENT	5
<i>Basics of Law and Anti-Corruption Culture</i> The study of the discipline is aimed at considering the issues of the main branches of law, which give a general idea of the role of	5

legislative norms, and also provides for the study of the formation of anti-corruption worldview and legal culture of students	
<i>Basics of Economics and Business</i> The discipline forms an economic way of thinking, theoretical and practical skills in organizing successful entrepreneurial activities of enterprises in a competitive environment	5
When studying this discipline, students will master the methodology and practice of effective management of behavior and interaction of people through the use of leadership qualities, styles, methods of influence at the level of the enterprise, region and country as a whole	5
<i>Ecology and Basics of Life Safety</i> The discipline will study the current state and negative factors of the environment, bioecology, biosphere and humanity, security problems in the "Human-environment" system, natural man-made and military emergencies, ensuring the safety of human interaction with the environment; identification of harmful and dangerous factors	5
<i>Basics of Research and Academic Writing</i> The discipline is aimed at the study of research methods and academic writing in the field of study. Students will study the conceptual apparatus and basic stages of research activities, classification of methods, areas of their application. Students will acquire skills of quantitative and qualitative analysis of scientific research and will be able to present their results in the form of publications and presentations in the academic environment.	5
Total academic credits	56

4.4 Progression of the studies

Modules and courses	BA degree, 4 academic years							
	1. year		2. year		3. year		4. year	
	1 sem	2 sem	3 sem	4 sem	5 sem	6 sem	7 sem	8 sem
PEDAGOGICAL COMPONENT								
SUPPORTING LEARNERS AS INDIVIDUALS – 17academic credits								
Psychology in Education and Concepts of Interaction and Communication 4academic credits			4					

Educational Science and Key Theories of Learning 3academic credits			3					
Inclusive Educational Environment 3academic credits					3			
Age and Physiological Features of the Development of Children 3 academic credits		3						
Teaching Planning and Individualization of Learning 4 academic credits						4		
TEACHING AND ASSESSMENT FOR LEARNING – 9academic credits								
Teaching Methods and Technologies 5academic credits				5				
Assessment and Development 4 academic credits					4			
TEACHER AS A REFLECTIVE PRACTITIONER – 9academic credits								
Pedagogical Research 4academic credits			4					
Research, Development and Innovation 5academic credits							5	
TEACHER AS A FACILITATOR OF LEARNING (PEDAGOGICAL PRACTICE) – 25academic credits								
Introduction to the teaching profession (1st		2						

year pedagogical practice) 2 academic credits								
Psychological and pedagogical assessment (2nd year pedagogical practice) 2 academic credits				2				
Pedagogical approaches (3rd year pedagogical practice) 6 academic credits						6		
Research and innovation in education (4th year pedagogical practice) 15 academic credits								15
Pre-diploma practice - 4 academic credits								4
COMPULSORY COMPONENT								
MODULE OF HISTORICAL AND PHILOSOPHICAL COMPETENCIES – 10 academic credits								
History of Kazakhstan 5 academic credits	5							
Philosophy 5 academic credits	5							
MODULE OF SOCIO-POLITICAL KNOWLEDGE – 8 academic credits								
Sociology 2 academic credits		2						
Political studies 2 academic credits		2						
Cultural studies 2		2						

academic credits								
Psychology 2 academic credits		2						
INSTRUMENTAL AND COMMUNICATION MODULE – 25 academic credits								
Russian /Kazakh language 10 academic credits	5	5						
Foreign language 10 academic credits	5	5						
Information and communication technologies 5 academic credits	5							
HEALTH PROMOTION MODULE – 8 academic credits								
Physical education 8 academic credits	2	2	2	2				
Optional Component – 5 academic credits								
Basics of Law and Anti-Corruption Culture			5					
Basics of Economics and Business								
Basics of Leadership								
Ecology and Basics of Life Safety								
Basics of Research and Academic Writing								
SUBJECT COMPONENT								
Pedagogy and psychology of early childhood 6 academic credits		6						
Workshop on pre- school psychology 5 academic credits			5					
Pre-school				6				

Pedagogy 6 academic credits								
Game and modern child 5 academic credits		5						
Fundamentals of neuropsychology 5 academic credits								
Management in pre-school education 5 academic credits							5	
Socio-legal protection of early and pre-school childhood 5 academic credits							5	
Leadership in pre-school education 5 academic credits						5		
Entrepreneurial activity in pre-school education 5 academic credits								
Educational process in a multi-age group of a pre-school mini-center 5 academic credits						5		
Organization of leisure activities in a pre-school organization 5 academic credits								
Fundamentals of nutrition 5 academic credits						5		
Fundamentals of gamification 5 academic credits								
Design of a developmental							4	

environment for a pre-school organization 4 academic credits								
Social partnership of pre-school organization and family 4 academic credits			4					
Digitalization of childhood with the basics of pre-school student cybersecurity 5 academic credits							5	
Support for a pre-school student's initiative 5 academic credits								
Author's systems and methods of development and education 5 academic credits				5				
Home and family education of pre-school students 5 academic credits								
Communicative and speech development of children of early and pre-school age 6 academic credits					6			
Logical and mathematical development of pre-school Children 6 academic credits					6			
Sensory education at an early age 5					5			

academic credits								
Socio-emotional development in early and pre-school age 5 academic credits								
Ecological education of pre-school Children 6 academic credits Physical Education and Child Safety Culture 6 academic credits					6			
Musical education of pre-school students 6 academic credits								
Developing reading culture of pre-school Children 5 academic credits						5		
Artistic and aesthetic education of pre-school Children 5 academic credits								
Project activities in a pre-school organization 5 academic credits				5				
Monitoring in a pre-school organization 4 academic credits							4	
Workshop on exploring play subculture of pre-school children 5 academic credits				5				

Workshop on the study of modern material culture of childhood (toys) 5 academic credits								
Ethics of pedagogical research in Pre-school education 6academic credits							5	
Tools for a comprehensive assessment of the quality of pre-school education 6 academic credits								
FINAL ATTESTATION – 8academic credits								
Final attestation								8
Academic credits in total -240 academic credits	27	33	30	30	30	30	33	27
4.5 Requirements for the successful completion of curriculum								
For successful completion of the educational program, students shall have: <ul style="list-style-type: none">– minimum credits for core and major subjects;– achievement of all learning outcomes;– successful completion of compulsory and optional courses;– successful fulfillment and defense of Final attestation work (<i>Oral Exam, Written Exam, Diploma work, Research project, Development project, Organisational project, Strategic project, Art project</i>);– the minimum average achievement score								

5. Description of students' work

Students' work includes contact teaching, individual, pair and group work, assignments, exams, etc. 1 ECTS = 30 hours of student work.

Students' individual and/or pair and group work is divided into two parts: individual and/or pair and group work supervised by a teacher and the

work that is performed entirely independently.

Students' individual and/or pair and group work is carried out on a specific list of topics allocated for independent/group study, provided with educational and methodical literature and recommendations for each course. Students' individual and/or pair and group work supervised by a teacher is carried out according to the schedule, which determines the university or the teacher themselves.

The entire scope of work performed entirely independently is supported by assignments that require the student to work independently on a daily basis.

The ratio of time between classroom contact work, students' individual and/or pair and group work supervised by a teacher, and the work that is performed entirely independently for all types of educational activities is determined by the educational institution independently. At the same time, the amount of classroom work and students' individual and/or pair and group work supervised by a teacher is 1440 hours per year, the scope of work that is performed entirely independently - 360 hours per year.

6. Evaluation methods/Assessment

6.1 Assessment

The Assessment of learning outcomes is based on the competence objectives of the modules and the resulting evaluation criteria of the courses. Assessment criteria are used as a basis for various tasks. Learning tasks include independent tasks, group tasks, plans, reports, group discussions, group tests, development tasks, laboratory tasks, various tasks for reflection and evaluation, or activating tasks. The assessment generates information for the pre-service teacher about his or her achievement of the competence goals of the pedagogical education modules.

Assessment is at the heart of all competence-based education. Competence-based assessment should measure not only what a pre-service teacher knows, but also take into account skills and whether pre-service teachers can apply what they know to real life problems or situations. Pre-service teachers should be given assignments and non-standard problems in situations that students are likely to encounter in the workplace. Assessment plays a very important role in competence-based training. Based on the

recognition of prior competence and personal situation, competence can be demonstrated on a per-course basis. The demonstration of competence can cover the entire training module. Specific guidelines regarding the practice of recognizing and accrediting prior training or training received elsewhere.

Studies are evaluated on a scale basis. Learning achievements (knowledge, abilities, skills and competencies) of pre-service teachers are evaluated in points on a 100-point scale, corresponding to the internationally accepted letter system with a numeric equivalent (positive grades, in descending order, from "A" to "D", and "unsatisfactory" - "FX", "F")

Alphabetic system of evaluation of pre-service teachers' learning achievements, corresponding to the digital equivalent of the four-point system.

Assessment by letter system	Digital equivalent of points	% content	Assessment according to the traditional system
A	4.0	95-100	Excellent
A-	3.67	90-94	
B+	3.33	85-89	Good
B	3.0	80-84	
B-	2.67	75-79	
C+	2.33	70-74	
C	2.0	65-69	Satisfactory
C-	1.67	60-64	
D+	1.33	55-59	
D	1.0	50-54	
FX	0.5	25-49	Unsatisfactory
F	0	0-49	

The purpose of assessment is to provide guidance and encouragement to pre-service teachers, develop their self-assessment abilities, provide information about pre-service teachers' competences, and ensure that the competences and intended learning outcomes defined in the educational programme are achieved. Self-assessment skills and peer assessment are

considered as the main skills of the world of work, and assessment is a central tool to support the development of these skills during study.

6.2 External evaluation

1) Design of new educational programmes Internal quality assurance system

The new curriculum needs to be designed through engagement with all stakeholders, including students, faculty and employers. The aim throughout the process is to retain and further develop the strengths and high quality of the existing programme while addressing some of the challenges of the current programme, such as the workload demand on students and the need for a course on education management. A survey of all students and alumni, together with focus group discussions and interviews with alumni and employers, also inform the design of the programme. All faculty are involved in discussions of programme aims and learning outcomes, and programme teams worked collaboratively to design the courses for their area of specialization.

On the basis of the faculty (school) of the university, a council on academic quality is formed, which makes decisions on the content and conditions of implementation of curricula, on the policy of evaluation and other academic issues of the faculty (school), organizing a survey of students on the quality of curricula and (or) disciplines/modules.

2) Procedures for external evaluation of the educational programmes. Continuous Improvement

All faculty are actively engaged in continuous improvement of their courses as an integral part of the culture of university and their own professionalism as experts in education. In addition to formal student feedback mechanisms such as course evaluations and Student Committee meetings, faculty and students are to communicate closely regarding specific courses and the programme as a whole. The process of continuous reflection and improvement informs the Annual Programme Monitoring process, in which individual faculty reflect on courses they have taught, this feeds into specialization-level reflection and suggestions for improvements, and this in turn goes to programme and School level reflection and plans for further improvement.

Universities have regular, formal mechanisms for obtaining feedback from employers and the professional community. These interactions also inform the continuous improvement of the programme.

For the improvement of the quality assurance of the educational programmes, the universities need to:

- develop an internal quality system that has a delicate balance between quality assurance and quality enhancement. While quality assurance is more of a preventive measure, quality enhancement has higher-order aims and implies transformational change (Jones, 2003).
- raise institutional awareness and develop deep understanding of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) (2015) and implement ESG 2015 standards.
- regularly revisit the existing institutional quality processes for ongoing improvement.

3) Accreditation

There are institutional and specialised accreditation in Kazakhstan, they remain voluntary for higher educational institutions. However, accreditation is one of the conditions for obtaining state grants for student education.

7. Faculty requirements

7.1 Faculty Requirements

Availability of teachers in accordance with the disciplines of the educational programme, the correspondence of teachers' education to the profile of the taught disciplines and/or their academic or research degree of "Doctor of Philosophy (PhD)" or "Doctor in Profile", and/or the academic title of "Associate Professor (Associate Professor)", or "Professor" (if any) and/or teachers with the degree of "Master" to the profile of disciplines and (or) senior teachers with at least three years of experience as a teacher or experience practical work on the profile for at least five years.

The advanced/academic degree of the teaching staff corresponds to the academic degree of the doctor/candidate of sciences or the advanced/academic PhD degree of the doctor or master. Basic education or postgraduate education or doctorate/candidate of science degree, advanced/academic PhD degree must correspond to the subjects taught.

7.2 Additionally Required Faculty

Part-time teachers in the main place of work engaged in practical

professional activities in the profile of the subjects taught, with at least 3 years of work experience in the field of training. Additionally, leading scientists, specialists from other higher education institutions and research organizations, teachers, and supervisors of schools in corresponding categories such as: expert teacher, research teacher, master teacher, can be involved in the work.

7.3 Required professional development of faculty

On the basis of the Law of the Republic of Kazakhstan "On Education" (2007; with amendments dated 27.12.2019) and other regulatory legal acts regulating the activities of higher education organizations in the Republic of Kazakhstan, a teacher who carries out professional activity in a higher education organization has the right for professional development at least once every five years for a duration of no more than four months.

The development of professional competences is also one of the priorities adopted in the Republic of Kazakhstan "Concepts of lifelong learning (continuing education)" (2021).

7.4 Required additional administrative staff

Vice-rector for academic affairs is responsible for planning and monitoring the implementation of educational services.

Responsibility for arranging and coordinating the implementation of the specific steps of the procedure and the quality of the outputs rests with the heads of divisions.

8. Resources

8.1 Library Resources

The library collection is an integral part of the information resources and includes educational, teaching, scientific and other literature.

Availability of a library fund of educational and scientific literature: in the format of printed and electronic publications for the last ten years, providing 100% of the disciplines of the curricula, including those published in the languages of instruction. Updating of the library fund should be carried out in accordance with the regulations of the Republic of Kazakhstan.

8.2 IT Resources

University provides pre-service teachers with educational and teaching literature and (or) electronic resources necessary for successful implementation of curricula, provides the functioning of the information system of education management (high-tech information and educational

environment, including the website, information and educational portal, automated system of credit technology training, a set of information and educational resources).

8.3 Infrastructure

University provides equipment with educational, methodological, scientific and other literature, classrooms with multimedia complexes, computer rooms, access to broadband Internet, sports, material and technical, educational and laboratory facilities and equipment necessary for the implementation of curriculum.

9. Additional information

9.1 Additional materials

Inclusion is one of the most important cross-cutting principles of the curriculum (see more in Annex 1.). Inclusion in education means that all students, regardless of their possible impairments or disability, should have the opportunity to participate in the regular school systems and study with their peers. The teacher education emphasizes on pre-service teachers' perceptions of themselves as experts in implementing curriculum for diverse learners based on the principles of pedagogy of difference or universal design for all. It is important to renew inclusive pedagogies such as co-teaching and differentiating. It is important that not only the specialized teachers (special education teachers) but all teachers can work in an inclusive educational environment. Thus, competences of all pre-service teachers need to be developed in areas such as:

Knowledge of the concepts and principles of inclusive education:

- Evaluation of one's own activity in terms of the values of inclusion.
- Understanding of the implementation of the principle of inclusiveness in education implemented by a flexible model of the educational process: adaptive programmes, changing the ways of assessing educational achievements.
- Understanding of children's different abilities and application of different trajectories to support versatile learners.

Practical applications in teaching:

- Designing of an adapted/individual programme for a child with special education needs in specific subject.
- Using of multimodal universal teaching methods, simple structured speech, use alternative communication.

9.2 E-learning

The rapid development of digital technologies requires the study of not only specific software tools, but the development of pre-service teachers' competences on using virtual learning environments and tools in teaching and choosing pedagogical methods suitable for learning processes in digital learning environments (psychological and didactic justification). For this the universities need:

- to create provisions for the professional development of pre-service teachers with the effective use of digital technology;
- to develop competences of pre-service teachers on understanding how individual educational needs of their students can be considered when using digital tools or in virtual learning environments;
- to develop digital competences of pre-service teachers on using digital learning environments and tools in assessment, such as gamification, digital tests and quizzes, and other formats of digital evaluation;
- to promote pre-service teachers' capabilities in assessing their digital competences and the use of digital tools in pedagogical processes in relation to the requirements of the employers (schools) daily operations;
- to put into practice the integration of education, science, and industry, and involve professional communities in teaching school students the basics of applying and using digital technology, and perform an independent assessment of the practical skills acquired;
- to include digitalization into the educational process for in-service teachers to increase efficiency and practical application of digitalization in education;
- to promote the implementation of global standards in digitalization in initial teacher education (i.e. International Society for Technology in Education (ISTE) and the establishment of an expert community of educators in digitalization.

10. Approval

- Ensure a review of the developed curricula, its coordination and approval by the Republican Educational and Methodological Council of Higher and Postgraduate Education.

- Scale up all developed curricula in pedagogical universities

APPENDIX 1: Main principles of the curriculum

Competence-based approach

Competence-based approach is a learning-oriented way to organise and implement teaching. It is an alternative to more traditional educational approaches mainly focusing on what learners are expected to learn about in terms of traditionally-defined subject content. In designing the curriculum following the principles of competence-based approach, the focus is on what we want our students to learn. Thus, it is essential to define the competences that the students are supposed to learn during their degree programs. The articulation of competences should include both discipline specific skills as well as the generic competences or soft skills that the teacher students should develop during the curricula. Soft skills include, for example, leadership, communication and collaboration skills, reflection skills, social and emotional intelligence etc. The development of these soft skills should be included in all the curricula, the competences and learning outcomes as well as the implementation of the curricula.

After defining the degree level competences, the learning outcomes of study units and study modules should be compiled by comparing them to the objectives of the entire degree. Learning outcomes represent the desired state, which is expressed as knowledge, skills and attitudes. The written learning outcomes of all the interconnected study units should also make visible the accumulated competence. Planning competence-based learning thus starts at degree programme level and is then realised at study unit level through the learning outcomes, the execution of the study unit and its assessment.

The reason for using competence-based approach to designing curricula is that it makes it possible to design courses and study programs in a more student-centred way. Student-centred approach means that the key knowledge and skills that the students need to achieve during their studies determine the content of the course or study programme. The aim of the competence-based approach to designing curricula is that the students acquire the knowledge, skills and attitudes/values that are essential. Further, the competence-based approach supports students to identify the knowledge and skills specific to their discipline or field of education as well as the generic competences that accumulate during their studies and are common to all degrees.

To sum up the key elements in designing competence-based curricula, it is essential to focus on describing explicitly a) what competences (including subject-specific and general competencies) should a student have after graduation/after study unit/after an individual course, b) how do different study

modules, courses and study modes support the development of the competencies, c) how is it ensured that the degree program and the learning objectives of the courses form a coherent entity supporting the development of the competencies, and d) how is it possible for students to make their competence visible (assessment related decision)

The implementation of all curricula should introduce methodologies that promote student-centeredness and active learning, such as gamification, PBL, etc. In a student-centred learning approach, students are active participants, placed at the core of the learning process. The learner is not seen as a passive receiver of knowledge but, rather, an active participant. The teacher's role becomes that of a guide who assists the learner in the difficult process of constructing his/her knowledge. Student-centred approach to teaching broadly means the shift of focus from the teacher to the student and their learning processes (Tran et al., 2010). The emphasis in student-centred approach to teaching is on what the student does and the ways to improve students' active engagement and deep approach to learning (Biggs and Tang, 2011; Prosser and Trigwell, 2014). In student-centred approach the student is seen as an active constructor of knowledge. Thus, the focus of the student-centred teaching practices is to develop autonomy and active learning that eventually enable lifelong learning.

Student-centred approach & Active Learning Methodologies

Student-centredness differs from traditional teaching approach, also known as teacher-centredness, in that the focus is on designing the teaching-learning process in a way that it promotes students' active participation and deep approach. Teaching that requires active engagement from students is likely to increase quality learning (Biggs and Tang, 2011). However, student-centered learning does not sideline or diminish the role of teachers. Instead, it seeks to use teachers' expertise in different ways to increase student engagement.

Student-centeredness requires a change in the mindset of the teachers and has many implications for the teaching practices. For example, teaching and learning activities should be designed in a way that they support and promote active learning. Active learning methods place greater responsibility on the learner rather than passive approaches such as lectures. Active learning activities promote higher order thinking skills such as application of knowledge and analysis and engage students in deep learning processes rather than surface learning. Furthermore, they enable students to transfer and apply knowledge better. There is a variety of active learning methods, such as case studies, problem-solving, group projects, debates, peer teaching, games etc. to mention a few. However, it should be kept in mind that the methods should always be chosen purposefully to support the attainment of the intended learning

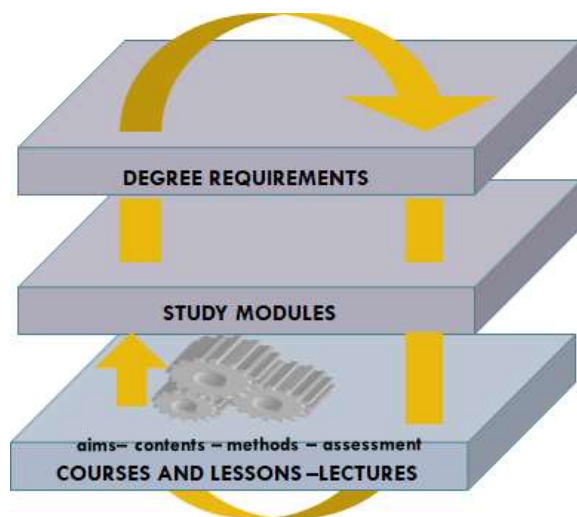
outcomes. Thus, when choosing the active learning methods, it should always be considered from the perspective of which methods support the attainment of the intended learning outcomes in a best possible way.

Constructive alignment

The principle of constructive alignment has long been promoted as a powerful way to enhance the quality of teaching and learning (Biggs and Tang, 2011). Constructive alignment is an integrative design for teaching and curriculum design in which the alignment between intended learning outcomes/competences, teaching-learning activities and assessment tasks is emphasised to optimise the conditions for quality learning. The fundamental principle is that curriculum should be designed in such a way that the learning activities and assessment tasks are aligned with the intended learning outcomes (ILOs), and what the students should be able to do or demonstrate after completing the degree, module or a course. High quality learning may be supported by integrating these components together.

Constructive alignment reflects the more general paradigm shift from teacher-centred teaching to student-centred teaching described above. The central step in designing teaching is to define the intended learning outcomes or the competences that the students are supposed to learn during the learning process and how they will demonstrate that learning has taken place (Biggs and Tang, 2011). The role of the instructor is to engage the student in relevant activities that support the attainment of the intended learning outcomes (Biggs, 1996). By choosing appropriate teaching and assessment methods and tasks and aligning them with the intended learning outcomes/competences it is possible to effectively guide students' study practices and enhance deep, meaning-oriented learning (Biggs and Tang, 2011; Boud and Falchikov, 2006). Constructively aligned teaching is essentially a criterion-referenced system where the central elements, that is, intended learning outcomes, teaching-learning activities and assessment, are aligned and there is consistency throughout these elements. Constructive alignment should be applied at all levels of the educational system, including institutional, departmental and classroom levels as teaching and learning take place in the whole system. In a good system, all aspects of teaching and assessment are tuned to support high level learning, so that all students are encouraged to use higher-order learning processes.

Figure 1. Illustration of constructive alignment



Research-based Initial Teacher Education

The recognition of the importance of research-based teacher education is growing worldwide (Flores, 2018). The research-teaching integration in the teacher educators' work has been suggested to be an effective solution to develop the profession in many aspects. They should be able to make explicit links between the educational theory, research and teaching practices. There is an increasing recognition that research is an important component of teacher education practices and is beneficial for preparing reflective practitioners (Flores, 2018). Research-based teacher education can take place in different forms. In its simplest form, it can mean that the teaching content is based on research, or that the teaching methods and pedagogical designs are based on research. It can also mean that teachers use inquiry-oriented methods in their teaching to enhance their students' own knowledge construction and research skills. Moreover, research-based teacher education can mean that the teacher educators themselves conduct research of their own work or more generally about topics related to teacher educators' work. The different forms of research-based teacher education identified in a recent research are presented in Table 1.

Teaching content is based on research	Teacher educators use their own or others' research as their teaching content to transfer academic knowledge to student teachers and develop the student teachers' independent thinking (Visser-Wijnveen et al. 2010).
Teaching methods and course design are based on research	Teacher educators benefit from their research work in teacher education and develop their teaching methods accordingly (Cochran-Smith 2005;

	Krokfors et al. 2011).
Applying inquiry-oriented methods in teaching	Teacher educators organise the course based on inquiry-oriented activities to guide student teachers to learn in an analytical and inquiring way to develop their pedagogical thinking (Krokfors et al. 2011).
Acting as researchers in teacher education	Teacher educators work as researchers and conduct research on what and how they teach, and on topics in teacher education (Cochran-Smith 2005).
Encouraging student teachers' involvement in research work	Teacher educators involve student teachers in research process to provide them with the experience of conducting research (Visser-Wijnveen et al. 2010).
A supportive relationship between research and teaching	Teacher educators consider the research-teaching nexus is complementary and fairly evident. Teaching and research support each other in a general and broad sense.

Table 1. Forms of research-based teacher education (Cao, Postareff, Lindblom-Ylänne & Toom, 2021)

Teacher education can adopt the research-based approach in diverse ways, and it is important to consider what kind of forms fit the cultural context and practices. The ultimate goal of research-based teacher education is to support student teachers to become pedagogically-thinking, reflective and inquiry-oriented teachers with an inquiring attitude towards teaching. Teachers' pedagogical thinking means the ability to analyse and conceptualise educational occasions and phenomena, to evaluate them as part of larger instructional processes and to make rational and theory-based decisions and justify their decisions and actions as teachers. Their readiness to consume as possibly also conduct research enhances their ability to meet the challenges of the future (Toom et al., 2010).

Research-based teacher education not only enhances the teacher educators' own professional development, but also enhances teacher students' reflective and deep learning. By engaging in research-based activities, the students can acquire a set of highly valued competences, such as critical thinking, problem solving and reflective skills (Lunenberg, 2010). Thus, it is important, that teacher educators support the student teachers' to become reflective practitioners with

an inquiring attitude (see Toom et al., 2010), which they can learn not only from what their teachers say about how to teach, but most importantly, from how their teachers engage their students in collaborative and interactive teaching-learning activities (Berry, 2004).

To make research-based teacher education occur in practice, it should be made visible in the teacher education curricula. Secondly, the teacher education programmes should develop their students' inquiry-oriented and research-oriented approach to their work and enhance their research skills. Becoming an inquiry-oriented reflective practitioner requires time and space to deeply reflect on theory, practice, and the link between them. Therefore, the curriculum of teacher education should provide possibilities for reflection and practicing new skills.

Interdisciplinary learning

Content and Language Integrated Learning (CLIL)

CLIL (Content and Language Integrated Learning) is a dual-focused educational approach in which an additional language is used for learning and teaching of both content and language (Coyle, Hood & Marsh, 2010:1). The umbrella term of CLIL also includes a range of other language programs, such as bilingual education, English- medium of education or immersion programs (Coyle, 2007; Mehisto, Marsh, and Frigols, 2008). But CLIL differs from those language programs by its equal focus on both content and language (Coyle, 2008; Dalton-Puffer, 2008; De Zarobe, 2008; Marsh, 2012). Thus, this approach is neither language learning nor subject learning but a combination of both; hence, attention is given both to the language and the content. Contrary to the common belief, the CLIL instruction takes place with and through a foreign language and it is not the approach when non-language subjects are taught in the foreign language (Eurydice, 2006).

The reasons for introducing CLIL include provision of a more holistic educational experience for the student as well as content-and language-learning outcomes realized in class. Furthermore, benefits of CLIL are also linked with insights from interdisciplinary research within neurosciences and education (Coyle, Hood & Marsh, 2010). Due to these advantages CLIL is increasingly attracting stakeholders' attention across continents.

In terms of the curriculum implementation, the CLIL approach is inclusive and flexible; it includes a range of models that can be adapted according to the age, ability and needs of the students (Coyle, 2007). Thus, implementing CLIL varies based on the context. In primary stage, language learning can be

embedded across the curriculum and link with one or more subjects of the curriculum. For example, through specific themes or projects (e.g. lifestyle, sports, and holidays).

Secondary CLIL can make specific links between a language and a subject (e.g. history through Kazakh, science through English) or it can take a broader approach integrating language with parts of curriculum. More recently, CLIL is less aligned to a single subject and is evolving through links with a variety of subjects or themes. The content for lessons can include particular aspects of the curriculum for individual subjects. In practical terms, lesson planning involves joint effort across a number of subjects focusing on the cross-curriculum feature for the secondary curriculum. But there is a need for research to explore whether such an approach is compatible with the local context.

The existing curriculum models integrating CLIL vary in length from a single unit which comprise a sequence of 2-3 lessons to a more sustained approach through modules lasting half a term or more. Some successful cases include schools with bilingual sections where subjects are taught through the medium of another language for extensive periods (Coyle et al., 2010).

STEM (Science, Technology, Engineering, Mathematics) education

Interdisciplinarity in natural sciences and mathematics, so called STEM - education can be defined as “an effort to combine some or all of the four disciplines of science, technology, engineering, and mathematics into one class, unit, or lesson that is based on connections between the subjects and real-world problems” (Moore et al. (2014). Implementation and integration of engineering in K-12 STEM education. In S. Purzer, J. Strobel, & M. Cardella (Eds.), *Engineering in Pre-College Settings: Synthesizing Research, Policy, and Practices* (pp. 35–60). West Lafayette: Purdue University Press.). STEM - pedagogy in teacher education aims to prepare students to design, teach and develop research-based active learning STEM -lesson plans to educate competent citizens, who can access and make sense of science relevant to their lives and global perspectives (Feinstein, N. W., Allen, S., & Jenkins, E. (2013). *Outside the pipeline: Reimagining science education for nonscientists*. Science, 340(6130), 314-317.).

Active learning includes student centered active methods, such that project based education, and benefitting from diverse out of classroom learning environments and communities of learners and ICT. On the hand, Science education should also focus on competences with an emphasis on learning through science and shifting from STEM to STEAM (A = All) by linking science with other subjects and disciplines (Hazelkorn, Ellen & Ryan, Charly & Beernaert, Yves & Constantinou, Costas & Deca, Ligia & Grangeat, Michel &

Karikorpi, Mervi & Lazoudis, Angelos & Pintó, Roser & Welzel-Breuer, Manuela (2015). Science Education for Responsible Citizenship. 10.2777/12626). In the ITE curricula in Kazakhstan, the A should include at least developing the English linguistic skills of teacher students (KAZ ITE D-3 Framework Report).

Digitalisation in Education and Teachers' Digital competence development

New information and communication technologies (ICTs) provide teachers and learners with an innovative learning environment to stimulate and enhance the teaching and learning process. In this context, novel educational concepts such as online learning, or blended and hybrid learning are being developed (López-Pérez, Pérez-López & Rodríguez-Ariza, 2011). Hybrid or blended learning can be defined as the integration of face-to-face classroom instruction learning with web-based tools and materials (e.g. Garrison & Kanuka, 2004), as contrast to fully online learning. Blended or hybrid learning is becoming increasingly significant to complement traditional forms of learning. Often these two terms are defined similarly, but can also be differentiated. Blended learning can be defined as a mix of various event-based activities, including conventional face-to-face classrooms instruction, e-learning, and self-paced learning, while in hybrid learning a part of the learning activities and assignments are transferred from the face-to-face environment to the distance learning environment (see Valiathan, 2002, in Koohang, Britz & Seymor, 2006).

Blended forms of learning has the potential to enhance both the effectiveness and efficiency of meaningful learning experiences, and some researchers have suggested that blended learning has the potential to be even more effective and efficient when compared to a traditional classroom model (see Garrison & Kanuka, 2004). Other benefits of blended forms of learning include convenience, student satisfaction, flexibility and higher retention (Koohang, Britz & Seymor, 2006).

Especially in situations where student numbers are high, online, blended or hybrid forms of learning have the potential to provide greater opportunities for improved learning (Osguthorpe & Graham, 2003). In teacher education, student teachers can also learn from their teachers the use of various digital tools and platforms. Thus, not only teacher educators should have the skills to adopt digital tools in their teaching, but also student teachers should develop their digital skills during teacher education. Times faced with uncertainty and sudden changes, such as pandemics, require flexible and advanced use of digital tools and instructional practices functional in online contexts.

Inclusion in education and recognition of different learners

Inclusion in education is a principle which means that all students, regardless of their possible impairments or disability, should have the opportunity to participate in the regular school systems and study with their peers. Inclusion is based on several international United Nations declarations, such as the Salamanca Statement (1994) and The Universal Declaration of Human Rights (1948). Inclusive pedagogy is a pedagogical approach that is impacted by the sociocultural context of learning (Florian & Black-Hawkins, 2011) and it aims to respond to the diverse learning needs of students in as varied ways as possible.

The concepts of 'inclusion' and 'diversity' are reviewed in the teaching and education practices with the activities and arrangements that promote inclusion as the centre. The key words in education are educational equality, accessibility, individuality, lifelong learning and co-operation. The teacher training emphasizes on teachers' perceptions of themselves as experts in implementing curriculum for diverse learners based on the principles of pedagogy of difference or universal design for all. It is important to renew inclusive pedagogies such as co-teaching and differentiating. The teacher's task is to teach and guide students to become lifelong learners while taking each student's individual learning style into account. Four core values related to teaching and learning have been identified as the basis for the work of all teachers in inclusive education (European Agency). These core values are associated with areas of teacher competence. The areas of competence are made up of three elements: attitudes, knowledge and skills. All teachers must commit to the idea of equality for all students. (Saloviita, 2018.)

Teachers' professional development and change management

Considering the dynamic and constantly changing nature of teachers' work, teachers at all levels must be continuous learners throughout their professional careers. Teachers' professional development needs to address simultaneously the teachers' beliefs and conceptions and the improvement in their practices (Timperley & Phillips, 2003), as well as integration of theoretical and practical knowledge (Tynjälä, Häkkinen & Hämäläinen, 2004). Often an experience of a successful implementation in teaching changes teachers' attitudes and beliefs, and therefore, positive experiences are central for teachers' professional development (Guskey, 1989).

Development and growing as a teacher can be understood in different ways: 1) growing understanding of one's content area, in order to become more familiar with what to teach; 2) getting more practical experience as a teacher, in order to become more familiar with how to teach; 3) building up a repertoire of teaching

strategies, in order to become more skilful as a teacher; 4) finding out which teaching strategies work best for the teacher, in order to become more effective as a teacher, and 5) continually increasing understanding of what works for students, in order to become more effective in facilitating student learning (Åkerlind, 2007).

It is important to notice, that professional development of teachers is often a slow process. Furthermore, the development is not a linear continuum, but instead, the development may be interrupted by various reasons (Beijaard, Meijer & Verloop, 2004). Some teachers may experience change and development as threatening and change processes often include feelings of anxiety or uncertainty (Postareff et al., 2008). Such negative emotions towards the change may narrow the teacher's attention (Fredrickson, 2001). Therefore, it is important to ensure that teachers receive enough support from diverse sources (e.g. peers, supervisors, work environment) and encouraging feedback. It is also important for teachers to understand, that failures are part of the teachers' professional development, and mistakes should be seen as learning opportunities. When teachers have the possibility to share experiences and engage in collaboration with their peers, it has been shown to have positive influences of their learning and development (Voogt, et al., 2011). When teachers feel well and are engaged in their work, they are more likely to engage in pedagogical practices that promote their development (Fredrickson, 2001). The development of teaching is, at best, a continuous process, and thus, teachers should be encouraged to reflect on their own teaching on a continuous basis to increase their pedagogical awareness (Parpala & Postareff, 2021).

Teachers should also be provided with agency, which refers to the teacher's possibilities to influence, make decisions and take actions. The aim of exercising agency is to create new work practices and transforming the course of activities (Hökkä et al., 2012). When teachers have a possibility engage in development and changes, and when they experience that their opinions truly matter, they are likely to become highly engaged in their work (e.g. Day, Elliot & Kington, 2005; Pyhältö et al. 2012).

Literature

Beijaard, D., Meijer, P. C., & Verloop, N. (2004). Reconsidering research on teachers' professional identity. *Teaching and teacher education*, 20(2), p. 107-128.

Berry, A. (2004). Self study in teaching about teaching. In J. J. Loughran, M. L. Hamilton, V. K. LaBoskey, & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. Dordrecht: Springer. 1295-1332.

Biggs, J. (1996). Enhancing Teaching through Constructive Alignment. *Higher Education*, 32, p. 347-364.

Biggs, J., & Tang, C. (2011). *Teaching for Quality Learning at University*. Maidenhead, UK: Open University Press.

Boud, D. & Falchikov, N. (2006): Aligning assessment with long- term learning. *Assessment & Evaluation in Higher Education*, 31(4), p. 399-413

Cao, Y., Postareff, L., Lindblom-Ylänne, S. & Toom, A. (2021). A survey research on Finnish teacher educators' research-teaching integration and its relationship with their approaches to teaching. *European Journal of Teacher Education*.

Cochran-Smith, M. (2005). Teacher Educators as Researchers: Multiple Perspectives. *Teaching and Teacher Education*, 21(2), p. 219–225.

Coyle, D. (2007). Content and Language Integrated Learning: Towards a Connected Research Agenda for CLIL Pedagogies. *International Journal of Bilingual Education and Bilingualism*, 10(5), p. 543–562.

Coyle, D. (2008). CLIL - a Pedagogical Approach From the European Perspective. In *Encyclopedia of Language and Education*, edited by N. Hornberger, p. 1200–1214. Boston: Springer US.

Coyle, D., Hood, P., & Marsh, D. (2010). *CLIL: Content and Language Integrated Learning*. Cambridge: Cambridge University Press.

Dalton-Puffer, C. (2008). Outcomes and Processes in Content and Language Integrated Learning (CLIL): Current Research From Europe. In *Future Perspectives for English Language Teaching*, edited by W. Delanoy, and L. Volkmann, p. 1–19. Heidelberg: Carl Winter.

Day, C., Elliot, B., & Kington, A. (2005). Reform, standards and teacher identity: Challenges of sustaining commitment. *Teaching and teacher Education*, 21(5), p. 563-577.

De Zarobe, Y. R. (2008). CLIL and Foreign Language Learning: A Longitudinal Study in the Basque Country. *International CLIL Research Journal*, 1(1), p. 60–73.

European Agency. *Profile of Inclusive Teachers*. <https://www.european-agency.org/projects/te4i/profile-inclusive-teachers>

Eurydice. 2006. *Content and Language Integrated Learning (CLIL) at School in Europe*. Brussels: Eurydice.

Fimyar, O., Yakavets, N., & Bridges, D. (2014). The contemporary policy agenda. In D.Bridges (Ed), *Educational Reform and Internationalisation. The case of school reform in Kazakhstan* (pp. 53-68). Peterborough, UK: Printondemand-worldwide.

Feinstein, N. W., Allen, S., & Jenkins, E. (2013). Outside the pipeline: Reimagining science education for nonscientists. *Science*, 340(6130), p. 314-317

Flores, M.A. (2018). Linking Teaching and Research in Initial Teacher Education: Knowledge Mobilisation and Research-informed Practice. *Journal of Education for Teaching*, 44 (5), p. 621–636.

Florian, L., & Black- Hawkins, K. (2011). Exploring inclusive pedagogy. *British Educational Research Journal*, 37(5), p. 813–828.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: the broaden-and-build theory of positive emotions. *American psychologist*, 56(3), p. 218.

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The internet and higher education*, 7(2), p. 95-105.

Guskey, T.R. (1989). Attitude and perceptual change in teachers. , 13, p. 439-453.

Hazelkorn, E., Ryan, C., Beernaert, Y., Constantinou, C., Deca, L., Grangeat, M., Karikorpi, M., Lazoudis, A., Pintó, R. & Welzel-Breuer, M. (2015). *Science Education for Responsible Citizenship*. European Commission: Directorate-General for Research and Innovation, Science with and for Society.

Hökkä, P., Eteläpelto, A., & Rasku-Puttonen, H. (2012). The professional agency of teacher educators amid academic discourses. *Journal of Education for Teaching*, 38(1), p. 83-102.

IAC (2018). Analytical Report. Monitoring and assessment of implementation of a flexible form of management in universities. IAC.

Jones, S. (2003). Measuring the quality of higher education: linking teaching quality measures at the delivery level to administrative measures at the university level. *Quality in Higher Education*, 9(3), 223-229.

Koohang, A., Britz, J., & Seymour, T. (2006). Panel Discussion. Hybrid/blended learning: Advantages, Challenges, Design and Future Directions. In *Proceedings of the 2006 Informing science and IT education joint conference* (p. 155-157).

Krokfors, L., Kynäslahti, H., Stenberg, K., Toom, A., Maaranen, K., Jyrhämä, R., Byman, R. & Kansanen, P. (2011). Investigating Finnish Teacher Educators' Views on Research-based Teacher Education. *Teaching Education*, 22(1), p. 1–13.

López-Pérez, M. V., Pérez-López, M. C., & Rodríguez-Ariza, L. (2011). Blended learning in higher education: Students' perceptions and their relation to outcomes. *Computers & education*, 56(3), p. 818-826.

Lunenberg, M. (2010). Characteristics, scholarship and research of teacher educators. In P. Peterson, E. Baker, & B. McGaw (Eds.), *International encyclopedia of education* (p. 676-680). Oxford, UK: Elsevier.

McLaughlin, C., Winter, L., Kurakbayev, K., Kambatyrova, A., Torrano, D., Fimyar, O., Ramazanova, A. (2016). The Improvement of Secondary Education Curriculum of Kazakhstan in the Context of Modern Reforms (unpublished report). Astana: Nazarbayev University Graduate School of Education.

Marsh, D. (2012). *Content and Language Integrated Learning (CLIL). A Development Trajectory*. Cordoba: Servicio de Publicaciones de la Universidad de Córdoba.

Mehisto, P., Marsh, D. & Frigols, M. J. (2008). *Uncovering CLIL Content and Language Integrated Learning in Bilingual and Multilingual Education*. London: Macmillan.

Moore, T. J., Stohlmann, M. S., Wang, H. H., Tank, K. M., Glancy, A. W., & Roehrig, G. H. (2014). Implementation and integration of engineering in K-12 STEM education. In *Engineering in Pre-College Settings: Synthesizing Research, Policy, and Practices* (p. 35-60). West Lafayette: Purdue University Press.

OECD (2014). Reviews of National Policies for Education: Secondary Education in Kazakhstan. Retrieved from: <http://dx.doi.org/10.1787/9789264205208-en>

OECD (2020). *Raising the Quality of Initial Teacher Education and support for early career teachers in Kazakhstan*. OECD Education Policy Perspectives, No. 25, OECD Publishing, Paris.

"On Education" (2007) Law of the Republic of Kazakhstan; with amendments dated 27.12.2019.

On approval of the Lifelong Learning (continuing education) Concept (2021). Resolution No. 471 of the Government of the Republic of Kazakhstan dated 8 July 2021.

Osguthorpe, R. T., & Graham, C. R. (2003). Blended learning environments: Definitions and directions. *Quarterly review of distance education*, 4(3), p. 227-33.

Parpala, A., & Postareff, L., (2021). Supporting high-quality teaching in higher education through the HowUteach self-reflection tool. *Ammattikasvatuksen aikakauskirja*, 4, 2021.

Postareff, L., Lindblom-Ylänne, S., & Nevgi, A. (2008). A follow-up study of the effect of pedagogical training on teaching in higher education. *Higher Education*, 56(1), p. 29-43.

Prosser, M., & Trigwell, K. (2014). Qualitative Variation in Approaches to University Teaching and Learning in Large First-Year Classes. *Higher Education*, 67, p. 783-795.

Pyhältö, K., Pietarinen, J., & Soini, T. (2012). Do comprehensive school teachers perceive themselves as active professional agents in school reforms? *Journal of Educational Change*, 13(1), p. 95-116.

Salamanca Statement. (1994). *The Salamanca statement and framework for action on special needs education*. Salamanca: UNESCO, Ministry of education and Science. <https://www.european-agency.org/sites/default/files/salamanca-statement-and-framework.pdf>

Saloviita, T. 2018. Attitudes of Teachers Towards Inclusive Education in Finland. <https://www.tandfonline.com/doi/full/10.1080/00313831.2018.1541819>

Sharplin, E., Ibrasheva, A., Shamatov, D., Rakisheva, A. (2020). Analysis of Teacher Education in Kazakhstan in Context of Modern International Practice. *Bulletin of KazNU, Pedagogical Series*, 64(3), pp. 12-27.

SESPE (State Educational Standard for Primary Education). (2015) Available from: <http://nao.kz/loader/fromorg/2/22> Accessed: 29 November 2021.

Silova, I., and G. Steiner-Khamisi. (2008). *How NGOs React: Globalization and Education Reform in the Caucasus, Central Asia, and Mongolia*. Bloomfield, CT: Kumarian Press.

The Universal Declaration of Human Rights (1948). <https://www.un.org/en/aboutus/universal-declaration-of-human-rights>

Timperley, H. S., & Phillips, G. (2003). Changing and sustaining teachers' expectations through professional development in literacy. *Teaching and teacher education*, 19(6), p. 627-641.

Toom, A., Kynäslähti, H., Krokfors, L., Jyrhämä, R., Byman, R., Stenberg, K., Maaranen, K., & Kansanen, P. (2010). Experiences of a research-based approaches to teacher education: Suggestions for future policies. *European Journal of Education*, 45(2), p. 331-344.

Tran, N., Charbonneau, J., Benitez, V.V., David, M.A., Tran, G., & Lacroix, G. (2016). Tran et al conference ISBT 2010.

Tynjälä, P., Häkkinen, P., & Hämäläinen, R. (2014). TEL@ work: Toward integration of theory and practice. *British Journal of Educational Technology*, 45(6), p. 990-1000.

Yakavets, N., Bridges, D. & Shamatov, D. 2017. 'On constructs and the construction of teachers' professional knowledge in a post-Soviet context', *Journal of Education for Teaching: International Research and Pedagogy*. 1-22.

Visser-Wijnveen, G. J., Van Driel, J. H., Van Der Rijst, R.M., Verloop, N. & Visser, A. (2010). The Ideal Research-teaching Nexus in the Eyes of Academics: Building Profiles. *Higher Education Research & Development*, 29 (2), p. 195–210.

Voogt, J., Westbroek, H., Handelzalts, A., Walraven, A., McKenney, S., Pieters, J., & De Vries, B. (2011). Teacher learning in collaborative curriculum design. *Teaching and teacher education*, 27(8), p. 1235-1244.

Åkerlind, G. S. (2007). Constraints on academics' potential for developing as a teacher. *Studies in higher education*, 32(1), p. 21-37.