**PROPOSAL FORM FOR AN ACADEMIC PROGRAMME**

**Ergo-Pedagogy**

Approved for 2023-2027

Contents

[1. General information 3](#_Toc137341790)

[2. Programme rationale 6](#_Toc137341791)

[3. Teacher’s professional competences 6](#_Toc137341792)

[4. Program structure and learning outcomes 9](#_Toc137341793)

[4.1. Structure of the pedagogical component 9](#_Toc137341794)

[4.2 Structure of the subject component 23](#_Toc137341795)

[4.3 The structure of the compulsory component 53](#_Toc137341796)

[4.4 Progression of the studies 57](#_Toc137341797)

[4.5 Requirements for the successful completion of curriculum 63](#_Toc137341798)

[5. Description of students’ work 63](#_Toc137341799)

[6. Evaluation methods/Assessment 64](#_Toc137341800)

[6.1 Assessment 64](#_Toc137341801)

[6.2 External evaluation 66](#_Toc137341802)

[7. Faculty requirements 67](#_Toc137341803)

[7.1 Faculty Requirements 67](#_Toc137341804)

[7.2 Additionally Required Faculty 67](#_Toc137341805)

[7.3 Required professional development of faculty 68](#_Toc137341806)

[7.4 Required additional administrative staff 68](#_Toc137341807)

[8. Resources 68](#_Toc137341808)

[8.1 Library Resources 68](#_Toc137341809)

[8.2 IT Resources 68](#_Toc137341810)

[8.3 Infrastructure 69](#_Toc137341811)

[9. Additional information 69](#_Toc137341812)

[9.1 Additional materials 69](#_Toc137341813)

[9.2 E-learning 70](#_Toc137341814)

[10. Approval 70](#_Toc137341815)

[**APPENDIX 1**: Main principles of the curriculum 71](#_Toc137341816)

[**Literature** 81](#_Toc137341817)

# 1. General information

|  |  |
| --- | --- |
| **1.1. Curriculum title** | **Ergo-Pedagogy** |
| **1.2. Curriculum developing team:** | |  |  | | --- | --- | | **Leader university** | **Member universities** | | Sarsen Amanzholov East Kazakhstan State University | Kazakh National Women's Teacher Training University | |  | M.Kh.Dulaty Taraz Regional University | |  | Abai Kazakh National Pedagogical 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 description** Curriculum goals and objectives | This Educational Programme (EP) "*Ergo-pedagogy*" 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) "*Ergo-pedagogy*" is a teacher education programme for pre-service teachers who wish to work as a Teacher-ergotherapist in educational establishments (schools, colleges, high schools). EP consists of a pedagogical component 60 credits (incl. pedagogical practice), a compulsory component 56 credits, and a subject component 124 credits (incl. a final thesis of 8 credits).  Subject component consists of 5 modules: "Theoretical models in ergopedagogics", "Development in ontogenesis", "Adaptive physical education", "Assessment and intervention", "Adaptation and rehabilitation", “Research and forecasting”.  EP “*Ergo-pedagogy*” develops competences for designing and running programmes to develop purposeful and meaningful activities for children with developmental disabilities, and to improve their motor, emotional, cognitive, and mental functional abilities.  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 per-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 teach and supervise young people and adults studying for the same subject.  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, the structures of education 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**  1. 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. 2. 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. 3. 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**  1. 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. 2. 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**  1. 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. 2. 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. 3. 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 assessment**  1. Pre-service teachers are able to assess the nature of the impairments and make decisions about the need to restore or develop the functional abilities of the child that are necessary to perform activities of daily living and maximize motor activity and holistic activity  * **Competence area for the rehabilitation and development process**  1. Pre-service teachers are able to select, modify, and apply theories, methods, and models to meet the health and activity-related needs of the child based on a comprehensive team assessment are able to plan and implement psychological and pedagogical interventions to achieve maximum independence in daily life for the child with disabilities 2. Pre-service teachers can monitor the effectiveness of implemented programs to achieve the maximum possible motor activity of the child and holistic activity  * **Competence area for the organization of the developing and rehabilitating environment**  1. Pre-service teachers are able to analyze the environment, propose and ensure the organization of optimal conditions for development and self-actualization, social inclusion and inclusion through movement and employment in various areas of life, in order to improve the quality of life of a child with disabilities |
| **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**  1. 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. 2. 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. 3. 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**  1. 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. 2. 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. 3. 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. 4. 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 60 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)** | **25** | | 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 | | **Total academic credits** | **60** |   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 | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for pedagogy and didactics (1) * Competence area for interaction (3, 4)   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. 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 | **Pre-service teachers who demonstrate competence can:**   * 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 | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for pedagogy and didactics (1, 2)   Pre-service teachers explore the basics of educational science such as the conceptions of man leading to various learning 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:**   * 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 | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for pedagogy and didactics (2)   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. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * 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 | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for pedagogy and didactics (2) * Competence area for teachers´ work environment (6, 7)   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. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * 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 | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for pedagogy and didactics (1, 2)   Pre-service teachers are familiar with the curriculum in their area of teaching and the guiding pedagogical principles and 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 | **Pre-service teachers who demonstrate competence can:**   * 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 | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for pedagogy and didactics (1, 2)   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. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * 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 | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for pedagogy and didactics (2)   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. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * 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 practitioner 9 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 description | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for professional development (10)   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. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * 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 | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for professional development (8, 9) * Competence area for interaction (5)   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.  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. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * 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. |  |  |  | | --- | --- | | **Teacher as a facilitator of learning (Pedagogical practice) 25 Academic credits** | | | 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.  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.  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 25 Academic credits | | Academic credits | 2 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence:   * 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)   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.  The prerequisite for the course is that the Pre-service teachers have completed the courses "*Psychology in Education and Concepts of Interaction and Communication* " and "*Age and physiological features of the development of children*" of the pedagogical component before entering their first pedagogical practice. | | Learning outcomes | **Pre-service teachers** **who demonstrate competence can:**   * 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 records (work plans of the educational institution, Kundelik electronic diary, short-term, medium-term and long-term lesson planning, etc.); * 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 25 Academic credits | | Academic credits | 2 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence:   * 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)   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.  The prerequisite for the course is that the Pre-service teachers have completed the course "*Pedagogical Research*" of the pedagogical component before entering their second pedagogical practice. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * + 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 welfare services function in schools;   + 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 25 Academic credits | | Academic credits | 6 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence:   * 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)   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).  The prerequisite for the course is that the Pre-service teachers have completed the courses "*Methods and Technologies of Teaching*", "*Assessment and Development*", and "*Inclusive Educational Environment*" of the pedagogical component before entering their third pedagogical practice. | | Learning outcomes | **Pre-service teachers** **who demonstrate competence can:**   * + 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 25 Academic credits | | Academic credits | 15 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence:   * 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)   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.  During this practice period pre-service teachers also collect and analyze data,test the hypothesis, or make experimentationsaccording to the research plan created in the course *“Research, Development, and Innovation”.* They make conclusions and explorevarious forms and channels of communicating the research results in a professional manner.  The prerequisite for the course is that the Pre-service teachers have completed the courses "*Teaching planning and individualization of learning*" and "*Research, development and innovation*" of the pedagogical component. | | Learning outcomes | **Pre-service teachers** **who demonstrate competence can:**   * + 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. | |
| 4.2 Structure of the subject component |
| |  |  | | --- | --- | | **Module name and main disciplines** | **Academic credits** | | **THEORETICAL MODELS IN ERGOPEDAGOGICS** | **24** | | **University Component** | **7** | | Biomechanics of movements | 7 | | **Optional Component** | **17** | | Ergonomics and life skills | 6 | | Introduction to the specialty ergo pedagogy | | Activity and behavior theories | 6 | | Basic essentials of occupational therapy | | Ensuring well-being and life skills development | 5 | | International standards for health and well-being assessment | | **DEVELOPMENT IN ONTOGENESIS** | **19** | | **University Component** | **14** | | Developmental psychology | 4 | | Morphofunctional features of the human body structure | 5 | | Special pedagogy and psychology | 5 | | **Optional Component** | **5** | | Fundamentals of Neurology and Pathophysiology | 5 | | Fundamentals of psychopathology | | **ADAPTIVE PHYSICAL EDUCATION** | **24** | | **University Component** | **10** | | Adaptive physical education and inclusion | 5 | | Adaptive Physical education practice | 5 | | **Optional Component** | **14** | | Modern methods of adaptive physical culture | 5 | | Private methods of adaptive physical culture | | Technologies and methods of teaching basic types of physical activity | 4 | | Theory and methodology of adaptive sports | | Models of wellness training | 5 | | Games and physical activities promoting development and learning | | **ASSESSMENT AND INTERVENTION** | **29** | | **University Component** | **10** | | Comprehensive assessment in the ergopedagogue work | 5 | | Ergotherapeutic interventions, their types and planning | 5 | | **Optional Component** | **19** | | Evidence-based practice of sensory integration | 7 | | Neuropsychological diagnosis and correction | | Therapeutic physical education and massage | 6 | | Group work based on activity | | Applied Kinesiology | 6 | | Methods and technologies of hardware correction | | **ADAPTATION AND REHABILITATION** | **15** | | **University Component** | **5** | | Social - psychological adaptation and rehabilitation | 5 | | **Optional Component** | **10** | | Technologies of support and monitoring of adaptation | 5 | | Environmental assessment and adaptation | | Technical means of rehabilitation and adaptation | 5 | | Habilitation in early intervention based on ICF-DP | | **RESEARCH AND FORECASTING** | **5** | | **Optional Component** | **5** | | Definition and understanding of professional effectiveness | 5 | | Research as a forecast | | **FINAL ATTESTATION** | **8** | | **Total academic credits** | **124** |  |  | | --- | | **Theoretical models in ergopedagogics 24 academic credits** | | The module introduces pre-service teachers to the principles, theories, and methods pertaining to this field of knowledge, explains the theoretical concepts of ergopedagogy, and explains the relationship between movement, health, and the overall well-being of the child. The module also emphasizes the importance of working with the body and movement of a child with a disability through reasonable and reasoned arguments. |  |  |  | | --- | --- | | Course title | **Biomechanics of movements** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Theoretical models in ergopedagogics 24 academic credits | | Academic credits | 7 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence   * Competence area for pedagogy and didactics (1) * Competence area for professional development (10) * Competence area for assessment (1)   Pre-service teachers have a good understanding of the laws of movement biomechanics and are able to apply this knowledge in their professional activities. Pre-service teachers identify gender- and age-specific features of human motor skills and can conduct biomechanical analysis of physical actions. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * determine the anatomical-morphological, physiological, biochemical, biomechanical, psychological features of physical activity and the nature of its impact on the human body, taking into account gender and age * evaluate the physical abilities and functional state of students, the technique of performing physical exercises. * formulate specific tasks and find ways to solve them when studying the biomechanics of human motor actions. |  |  |  | | --- | --- | | Course title | **Ergonomics and life skills** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Theoretical models in ergopedagogics 24 academic credits | | Academic credits | 6 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence   * Competence area for pedagogy and didactics (1) * Competence area for professional development (10)   Pre-service teachers are guided through the problems of interaction between humans and all sorts of objects that surround them. Pre-service teachers learn the principles of designing and creating environmental elements in such a way that they are as comfortable and adaptable as possible for human use. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * understand the nature of ergonomics and its basic terminology. * recognize the central areas of research in ergonomics and understand the differences in modern approaches. * distinguish cultural understandings of human nature, life skills, and human well-being and their implications for teacher work. * accept changes in the field of professional activity, taking into account the dynamics of the development of modern life skills |  |  |  | | --- | --- | | Course title | **Introduction to the specialty ergo pedagogy** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Theoretical models in ergopedagogics 24 academic credits | | Academic credits | 6 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence   * Competence area for pedagogy and didactics (1) * Competence area for professional development (10)   Pre-service teachers learn how the profession is related to health and well-being. Pre-service teachers distinguish between the basic models, distinguish cultural understandings of human nature, life skills, and human well-being and their implications for teacher work. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * describe what profession and participation mean and compare how different models use these concepts to guide practice. * distinguish between the main models of occupational therapy and compare their basic concepts. * identify the various stages of the professional process. * apply this knowledge by example. |  |  |  | | --- | --- | | Course title | **Activity and behavior theories** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Theoretical models in ergopedagogics 24 academic credits | | Academic credits | 6 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence   * Competence area for pedagogy and didactics (1) * Competence area for assessment (1)   Pre-service teachers are oriented in classical and modern approaches to the study of problems of activity and behavior. They understand the influence of activity on human development and can identify the leading needs and motives of a child | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * understand the essence of activity and behavior from the perspective of the psychological mechanisms and factors that guide and implement them * ready to analyze the child's capabilities and abilities in terms of specific activities and behavior * measure and assess the development of a child's activities and behavior in accordance with the intended purpose, and to interpret the results of measurements competently |  |  |  | | --- | --- | | Course title | **Basic essentials of occupational therapy** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Theoretical models in ergopedagogics 24 academic credits | | Academic credits | 6 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence   * Competence area for pedagogy and didactics (1) * Competence area for assessment (1)   After course completion, pre-service teachers know the basics of their own field of study and can consider how this can be applied to practical work. Pre-service teachers understand and can explain the stages of evidence-based ergotherapy. They have the skills to search for relevant information and assess the quality of evidence. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * understand the role of occupational therapy in rehabilitation * analyze theoretical models and methodological approaches in occupational therapy * measure and evaluate the effectiveness of the work carried out in accordance with the set goal |  |  |  | | --- | --- | | Course title | **Ensuring well-being and life skills development** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Theoretical models in ergopedagogics 24 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for the teacher's work environment (6) * Competence area for assessment (1) * Competence area for the rehabilitation and development process (2, 3) * Competence area for the organization of the developing and rehabilitating environment (4)   Pre-service teachers learn models in ecopedagogy and how it can be used in the development of services in the educational, social and health care sectors. They also learn the design principles of an occupational therapy program aimed at ensuring well-being and developing life skills. They study the regulatory framework. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * navigate international and national regulatory framework; * ready to assess well-being and life skills development from the perspective of ensuring children's health and a meaningful opportunity to learn. * plan and adjust the structure of the educational environment based on the results of monitoring, taking into account the individual characteristics of each child in an effective partnership with other participants in the educational process. |  |  |  | | --- | --- | | Course title | **International standards for health and well-being assessment** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Theoretical models in ergopedagogics 24 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for the teacher's work environment (6,7) * Competence area for assessment (1)   Based on international standards (ICF) and best practices, pre-service teachers plan and conduct assessments of child health and well-being, recognizing the content and their criteria. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * apply the criteria for child health and well-being in the context of international standards * take into account the possibilities for the development of health and well-being * apply health and well-being assessment tools * describe the assessment results * predict the development of health and well-being in the young child |  |  | | --- | | **Development in ontogenesis 19 academic credits** | | The module provides an introduction to the principles, theories, and methods pertaining to this area of knowledge, explains the theoretical concepts of age-specific psychology, and explains the relationship between the development of life skills and the overall well-being of the child. The module also provides knowledge for pre-service teachers of the functioning of the human body in norm and pathology. |  |  |  | | --- | --- | | Course title | **Developmental psychology** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Development in ontogenesis 19 academic credits | | Academic credits | 4 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for the pedagogy and didactics (1,2) * Competence area for assessment (1) * Competence area for the rehabilitation and development process (2) * Competence area for the organization of the developing and rehabilitating environment (4)   In order to stay current and be able to continually develop themselves and their work, pre-service teachers acquire new research-based knowledge and conduct research in various networks regarding the development of the professional environment, innovative approaches in their field of work, and about the development and leadership of their pupils. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * understand developmental patterns and age norms. * monitor relationships from one age stage to the next. * measure and assess the level of development of mental processes and various types of individual’s activity in accordance with the goal. * use various professional networks, choose, modify and apply theories, methods and models to meet the needs of the child related to health and activity * analyze the child's environment and ensure the organization of optimal conditions for his or her development and self-realization |  |  |  | | --- | --- | | Course title | **Morphofunctional features of the human body structure** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Development in ontogenesis 19 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for assessment (1) * Competence area for the rehabilitation and development process (2) * Competence area for the organization of the developing and rehabilitating environment (4)   Pre-service teachers know the basic terminology of the anatomy of the musculoskeletal system. They understand the basic structures of the human body and the physiological mechanisms of the most important organ systems. Pre-service teachers can describe the most significant muscles and joints associated with movement, understand the basic structure and functions of the neuromuscular system. And they can also evaluate the mobility, muscle mass and tactile sensations of the child. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems. * use tools and methods to assess indicators of the child's development and the dynamics of his or her achievements. * plan and adjust educational tasks based on the results of monitoring, taking into account the individual characteristics of each child. * plan and implement measures aimed at restoring and strengthening motor functions * analyze the current situation and condition of the child and ensure the organization of optimal conditions for his or her development and self-realization |  |  |  | | --- | --- | | Course title | **Special pedagogy and psychology** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Development in ontogenesis 19 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence   * Competence area for professional development (10)   Pre-service teachers understand and have the ability to consider the diversity of children in development and the ability to support their well-being in a psychologically and ethically reasonable way, given the context of their psychophysiological characteristics. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * be aware of the nature of special pedagogy and psychology, know its basic terminology * understand the nature of the child's existing disorders and the specifics of compensating processes. * recognize the central areas of research in special pedagogy and psychology and understand the difference between everyday thinking and scientific knowledge. * distinguish cultural understandings of human nature and their relevance to the work of the teacher. * accept changes in the field of education, taking into account the prospects for their development. |      |  |  | | --- | --- | | Course title | **Fundamentals of Neurology and Pathophysiology** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Development in ontogenesis 19 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for assessment (1) * Competence area for the rehabilitation and development process (2, 3)   Pre-service teachers learn to assess the specifics of the violation in the development of the child and take this fact into account in their professional activities when building an individual child development program. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * able to understand the regularities of nervous system functioning in norm and pathology. * ready to assess clinical symptomatology in order to build an optimal individual child development program and the dynamics of achievement progress. * able to plan and adjust educational tasks based on the results of monitoring, taking into account the individual characteristics of each child. |  |  |  | | --- | --- | | Course title | **Fundamentals of pathopsychology** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Development in ontogenesis 19 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for assessment (1) * Competence area for the rehabilitation and development process (2, 3)   Pre-service teachers learn to consider the presence of pathopsychological symptoms in children. They also learn to support children’s well-being in a psychologically and ethically reasonable way, taking into account the context of their mental pathology. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * understand the laws of the functioning of the psyche in norm and pathology. * ready to assess clinical symptomatology in order to build an optimal individual child development program and the dynamics of achievement progress. * plan and adjust educational tasks based on the results of monitoring, taking into account the individual characteristics of each child. |  |  | | --- | | **Adaptive physical education 24 academic credits** | | The module equips pre-service teachers with subject knowledge and practical skills in their chosen area of expertise, gives them an introduction to methods and technology, and explains the specifics of conducting educational sessions with different categories of children, depending on the characteristics of motor impairments. |  |  |  | | --- | --- | | Course title | **Adaptive physical education and inclusion** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Adaptive physical education 24 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for the pedagogy and didactics (2) * Competence area for the teacher's work environment (6,7) * Competence area for professional development (8) * Competence area for the organization of the developing and rehabilitating environment (4)   Pre-service teachers have an understanding of the theory and practice of adaptive physical education, can develop a methodology for its implementation in an inclusive educational environment for effective use in the correctional and educational process, the rehabilitation practice of working with children with disabilities and persons with disabilities. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * know methods of training persons with disabilities in the field of special knowledge and ways of their rational application to optimize physical potencies in accordance with the allocated types of adaptive physical education * choose the most appropriate technical means of rehabilitation and adaptation, depending on the individual educational needs of each child. * promote the formation of ways for people with disabilities to learn and transform their own physical qualities and the world around them (ways of self-education in the adaptive physical education), providing them with conditions for self-determination, physical (bodily) self-improvement and, as a consequence, self-actualization. * take diversity into account and identify barriers to participation and learning that arise in schools. * identify development priorities and plan activities to support diversity (adaptation of educational programs, development of differentiated lessons). * facilitate collaboration in the school community (teachers, students, parents/guardians) to build a foundation of inclusive values and support student participation and achievement in sustainable school systems |  |  |  | | --- | --- | | Course title | **Adaptive Physical education practice** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Adaptive physical education 24 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for the pedagogy and didactics (2) * Competence area for professional development (8) * Competence area for the organization of the developing and rehabilitating environment (4) * Competence area for assessment (1)   Pre-service teachers plan the content of methodological assistance: methods of dosing physical activity; indications and contraindications to practicing certain types of Adaptive physical education exercises. They have a system of monitoring the Adaptive physical education activities of patients with psychophysical disorders; criteria for assessing the impact of physical exertion on the psychosomatic state of health. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * ensure that patients with disabilities learn motor actions that allow them to implement vital skills and abilities. * determine, plan, implement and adjust the content of cognitive and motor training, based on the unity of the mechanisms of formation of the orientational basis of mental, sensory, perceptual and motor actions and concepts and taking into account the results of the evaluation of the physical, functional and mental state of the patients; |  |  |  | | --- | --- | | Course title | **Modern methods of adaptive physical culture** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Adaptive physical education 24 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for the pedagogy and didactics (2) * Competence area for professional development (8) * Competence area for the organization of the developing and rehabilitating environment (4) * Competence area for assessment (1)   Pre-service teachers form a set of knowledge, skills and abilities necessary for practical use in the development and conduct of a comprehensive rehabilitation of persons with disabilities, their socialization and domestic adaptation. Pre-service teachers apply modern approaches to correcting the psychosomatic condition of children with disabilities using adaptive physical education techniques. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * apply modern approaches and methods of adaptive physical education; * participate in the design of an adapted individual educational program, taking into account special educational needs; * promote the development of mental and physical qualities in students with disabilities, taking into account the sensitive periods of development of certain mental and physiological functions, as well as the structure, nature, etiology and pathogenesis of the disease. * promote the restoration of impaired or temporarily lost functions of the pupils' bodies and abilities to learning activities with the use of means and methods of adaptive physical education * ensure that patients with disabilities learn motor actions that allow them to implement vital skills and abilities. |  |  |  | | --- | --- | | Course title | **Private methods of adaptive physical culture** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Adaptive physical education 24 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for the pedagogy and didactics (2) * Competence area for professional development (8) * Competence area for the organization of the developing and rehabilitating environment (4) * Competence area for assessment (1)   Pre-service teachers know the organization, structure, content, modern technology and best practices of educational, physical education and recreational work of people with disabilities of different nosological groups. Pre-service teachers have the necessary knowledge, skills, interest in the teaching profession as a humanistic mission, and psychological readiness to work with this population. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * know modern approaches and methods of adaptive physical education. * participate in the design of an adapted individual educational program, taking into account special educational needs. * promote the development of mental and physical qualities in students with disabilities, taking into account the sensitive periods of development of certain mental and physiological functions, as well as the structure, nature, etiology and pathogenesis of the disease. * promote the restoration of impaired or temporarily lost functions of the pupils' bodies and abilities to learning activities with the use of means and methods of adaptive physical education * ensure that patients with disabilities learn motor actions that allow them to implement vital skills and abilities. * carry out a set of measures to prevent the progression of the underlying disease (defect) of the body of students. |  |  |  | | --- | --- | | Course title | **Technologies and methods of teaching basic types of physical activity** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Adaptive physical education 24 academic credits | | Academic credits | 4 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence   * Competence area for the pedagogy and didactics (1,2)   Pre-service teachers study the theoretical foundations of basic sports and the methods of forming elementary motor skills necessary for independent work in physical education for children with special educational needs. Pre-service teachers demonstrate a sustained interest in their chosen profession and professionally significant qualities of personality of future teachers. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * understand the basic principles, fundamentals of theory and methods of teaching basic types of physical activity * plan the activities of students taking into account their individual characteristics. * have the skill to conduct practical classes. |  |  |  | | --- | --- | | Course title | **Theory and methodology of adaptive sports** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Adaptive physical education 24 academic credits | | Academic credits | 4 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence   * Competence area for the pedagogy and didactics (1,2)   Pre-service teachers study the theoretical foundations of the basic types of Paralympic sports and the methodology of management of the training process of students at the stage of improvement of sportsmanship in an adaptive sport (group of sports disciplines) | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * understand the basic principles, fundamentals of theory and methods of teaching basic types of Paralympic sports * plan the activities of students taking into account their individual characteristics. * possess the skill of conducting the training process. |  |  |  | | --- | --- | | Course title | **Models of wellness training** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Adaptive physical education 24 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for the pedagogy and didactics (2) * Competence area for professional development (8) * Competence area for the organization of the developing and rehabilitating environment (4) * Competence area for assessment (1)   Pre-service teachers know the principles of developing models of health-improving exercise depending on the differences in nosology, can implement an educational and health-improving model of physical education | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * diagnose and monitor the individual educational needs and learning achievements of students with special educational needs assigned to different nosological groups. * develop individually adapted vocational programs for different categories of students. * coordinate the work on creating special educational conditions for the disabled and persons with disabilities. |  |  |  | | --- | --- | | Course title | **Games and physical activities promoting development and learning** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Adaptive physical education 24 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for the pedagogy and didactics (2) * Competence area for professional development (8) * Competence area for the organization of the developing and rehabilitating environment (4) * Competence area for assessment (1)   Pre-service teachers know the methods of game observation and the difficulties of children in learning the game. They are able to support the child's participation in joint activities with the help of physical games. They understand the importance of play to support a child's development, and can use tools to observe, evaluate, teach, and support play in functional situations. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * diagnose and monitor the individual educational needs and learning achievements of students with special educational needs during the implementation of learning games and physical exercises. * develop individually adapted game programs for different categories of students. * coordinate the work on creating special educational conditions for the disabled and persons with disabilities. |  |  | | --- | | **Assessment and intervention 29 academic credits** | | The provides pre-service teachers an introduction to the methods and techniques pertaining to this area of expertise, and explains procedures for conducting a comprehensive assessment of a child's current condition, the relationship between life skills development and the child's overall well-being. The module also provides pre-service teachers with knowledge of techniques and methods of occupational therapy interventions to ensure a productive corrective and developmental process. |  |  |  | | --- | --- | | Course title | **Comprehensive assessment in the ergopedagogue work** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Assessment and intervention 29 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence   * Competence area for assessment (1) * Competence area for interaction (3, 4)   Pre-service teachers can choose and use child-centered assessment methods to evaluate their experience and participation. They are able to observe and describe the quality of documentation classes. They understand the aspects of activity in a multidisciplinary team that affect the profession. They know the difference between non-standardized and standardized assessment methods. They choose targeted evaluation methods that will be used taking into account reliability, usability and ethical points of view. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * ready to assess a child's impaired motor functions * monitor and evaluate the result of occupational therapy intervention * interact within a multidisciplinary team |  |  |  | | --- | --- | | Course title | **Ergotherapeutic interventions, their types and planning** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Assessment and intervention 29 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for assessment (1) * Competence area for the rehabilitation and development process (2, 3)   Pre-service teachers understand the development and status of ergotherapy as part of rehabilitation. They know the distinctive nature of occupational therapy classes, different levels of classes and can analyze classes at different stages of the ergotherapy process. They have techniques for helping and guiding children in daily activities and they appreciate and respect individual differences, cultural beliefs, customs and their impact on the child's activities and participation. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * navigate the theoretical scientific rationale for ergotherapy techniques and methods. * design and implement an age- and nosology-specific ergotherapy process in professional practice. |  |  |  | | --- | --- | | Course title | **Evidence-based practice of sensory integration** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Assessment and intervention 29 academic credits | | Academic credits | 7 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for assessment (1) * Competence area for the organization of the developing and rehabilitating environment (4) * Competence area for the rehabilitation and development process (2, 3)   Pre-service teachers have the necessary knowledge of sensory integration, correctional and developmental technology. They are able to provide pedagogical assistance and have the skills to individualize teaching, taking into account the diversity of students and the use of technologies of sensory integration, based on pedagogical and independent research. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * understand the patterns of development of the sensory sphere of the child and sensory integration disorders. * is prepared to conduct clinical observation in order to assess the child's potential for building an optimal individual child development program and the dynamics of achievement progress. * analyze and optimize the environment taking into account the individual characteristics of each child. |  |  |  | | --- | --- | | Course title | **Neuropsychological diagnosis and correction** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Assessment and intervention 29 academic credits | | Academic credits | 7 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for assessment (1) * Competence area for the organization of the developing and rehabilitating environment (4) * Competence area for the rehabilitation and development process (2, 3)   Pre-service teachers know the basic principles of modern neuroscience and demonstrate professional natural science thinking. Pre-service teachers can plan and conduct neuropsychological diagnostics and correctional and developmental work aimed at overcoming or preventing learning difficulties for children with partial deviations in the development of higher mental functions. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * understand the patterns of development of the sensory sphere of the child and sensory integration disorders. * conduct neuropsychological diagnostics in order to assess the child's potential for building an optimal individual program of the child's development and the dynamics of achievements progress, as well as to conduct corrective interventions. * analyze and optimize the environment taking into account the individual characteristics of each child. |  |  |  | | --- | --- | | Course title | **Therapeutic physical education and massage** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Assessment and intervention 29 academic credits | | Academic credits | 6 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for assessment (1) * Competence area for the rehabilitation and development process (2, 3) * Competence area for the organization of the developing and rehabilitating environment (4)   Pre-service teachers study the theoretical foundations of therapeutic and pedagogical influence, the main directions, content and methods of therapeutic and pedagogical work. They learn to assess the impaired functions of the child. They also learn to carry out possible sets of therapeutic and pedagogical measures aimed at correcting developmental deviations. Pre-service teachers implement methods aimed at the prevention and rehabilitation of persons with developmental disabilities, based on the use of physical exercises, massage and other means of therapeutic physical culture. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * describe the anatomical and physiological characteristics of the reactions of the body of children and adolescents during physical therapy and massage. * apply the methods of health-improving physical education and sports activities with different groups of students. * make a set of physical therapy and recommendations for massage, taking into account age, gender, past motor experience and the localization of the pathological focus or injury. * conduct health massage and organize a comprehensive physiological, psychological, and pedagogical control of the state of the body during the physical therapy classes. |  |  |  | | --- | --- | | Course title | **Group work based on activity** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Assessment and intervention 29 academic credits | | Academic credits | 6 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for assessment (1) * Competence area for the rehabilitation and development process (2, 3) * Competence area for the organization of the developing and rehabilitating environment (4)   Pre-service teachers know how to work with clients in the social sphere, healthcare and rehabilitation, increasing their well-being and efficiency. They have the basic skills to establish a purposeful, client-centered partnership with the group as well as understanding of the basic principles of group leadership, namely, establishing a group, planning a group process, planning and conducting a group session, and using group dynamics and group process steps in group leadership in rehabilitation and social work. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * understand the theoretical foundations of group influence, the main directions, content and methods of group work. * demonstrate the ability to assess the impaired functions of the child. * carry out possible sets of therapeutic and pedagogical group measures aimed at correcting developmental deviations. * implement methods aimed at the prevention and rehabilitation of persons with developmental disabilities, based on the use of group training. |  |  |  | | --- | --- | | Course title | **Applied Kinesiology** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Assessment and intervention 29 academic credits | | Academic credits | 6 | | Course / competence description | The purpose of this course is to improve the following areas of subject competence   * Competence area for the rehabilitation and development process (2, 3)   Pre-service teachers are ready to identify and apply the most effective methods of kinesiology in pedagogical or psychological practice. They have a wide arsenal of practical exercises aimed at correcting and developing the most important areas of personality and detailed instructions for their use. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * possess a set of kinesiological techniques for the versatile development of children in the educational process. * select and apply the most effective methods of kinesiology in accordance with the special educational needs of the child. |  |  |  | | --- | --- | | Course title | **Methods and technologies of hardware correction** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Assessment and intervention 29 academic credits | | Academic credits | 6 | | Course / competence description | The purpose of this course is to improve the following areas of subject competence   * Competence area for the rehabilitation and development process (2, 3)   Pre-service teachers are prepared to identify and apply the most effective methods of hardware correction in pedagogical or psychological practice. They have a wide arsenal of technologies aimed at correcting and developing the most important areas of personality and detailed instructions for their use. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * possess a set of hardware correction for the versatile development of children in the educational process. * select and apply the most effective methods of hardware correction in pedagogical practice. |  |  | | --- | | **Adaptation and rehabilitation 15 academic credits** | | The module provides pre-service teachers an introduction to the concept of child adaptation and rehabilitation, methods and technologies related to this area of knowledge, and explains procedures for ensuring adaptation and rehabilitation. The module also provides pre-service teachers with knowledge of the technical support of the adaptation and rehabilitation process, taking into account the specifics of the child's impaired motor function development. |  |  |  | | --- | --- | | Course title | **Social - psychological adaptation and rehabilitation** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Adaptation and rehabilitation 15 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for the pedagogy and didactics (1,2) * Competence area for interaction (3, 4) * Competence area for the rehabilitation and development process (2, 3)   Pre-service teachers have an understanding of adaptation and rehabilitation process and they are able to observe the principles of client-centeredness in their work, as well as are capable of creating an interactive therapeutic relationship as the basis for the adaptation and rehabilitation process. They can work coherently in life situations related to adaptation and rehabilitation, using various forms, channels and environments of communication. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * have basic knowledge and understanding of the processes of socio-psychological adaptation and rehabilitation. * determine and apply the most effective methods of adaptation and rehabilitation of a child in pedagogical practice. * interact with members of the rehabilitation team, social, psychological, medical and other services on comprehensive rehabilitation for the benefit of the child. |  |  |  | | --- | --- | | Course title | **Technologies of support and monitoring of adaptation** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Adaptation and rehabilitation 15 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for interaction (3, 4) * Competence area for the rehabilitation and development process (2, 3)   Pre-service teachers have a good understanding of the importance of the adaptation process, and they are able to accompany it and monitor the child's development during adaptation. They assess risks and make decisions in non-standard situations. They can work in a team and group, interact with colleagues and social partners. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * monitor the achievement of the planned results of educational and correctional work. * train family members in optimal ways of organizing their lives, forming productive stereotypes of interaction in the family, methods and technologies of psychological and pedagogical support, and socio-psychological support. * organize, improve and analyze their own educational and correctional activities. * interact with public and social organizations of education, health, culture, in order to form and strengthen tolerant awareness and behavior towards persons with disabilities |  |  |  | | --- | --- | | Course title | **Environmental assessment and adaptation** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Adaptation and rehabilitation 15 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence   * Competence area for interaction (3, 4) * Competence area for the rehabilitation and development process (2, 3)   Pre-service teachers know how to assess the accessibility of the environment and how to find solutions to accessibility problems. Pre-service teachers understand the diversity of the terms "environment" and "accessibility". Pre-service teachers know how to search for information related to environmental assessment and adaptation and are familiar with research and development activities related to accessibility. Pre-service teachers are able to create an accessible and adaptable environment and have technological capabilities in online consulting. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * monitor the achievement of the planned results of educational and correctional work. * train family members in optimal ways of organizing their lives, forming productive stereotypes of interaction in the family, methods and technologies of psychological and pedagogical support, and socio-psychological support. * organize, improve and analyze their own educational and correctional activities. * interact with public and social organizations of education, health, culture, in order to form and strengthen tolerant awareness and behavior towards persons with disabilities |  |  |  | | --- | --- | | Course title | **Technical means of rehabilitation and adaptation** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Adaptation and rehabilitation 15 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of subject competence   * Competence area for the organization of the developing and rehabilitating environment (4)   Pre-service teachers know how to select technical means of rehabilitation depending on the needs of the child. They also know how to teach the operation of technical equipment and tools. Pre-service teachers are proficient in technology to implement injury prevention and ensure the protection of students' lives and health. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * know the regulatory framework for the organization of a barrier-free educational and developmental environment for all students, regardless of opportunities. * choose the most appropriate technical means of rehabilitation and adaptation, depending on the individual educational needs of each child. * assist in the formation and development of skills in the use of technical means of rehabilitation by students. |  |  |  | | --- | --- | | Course title | **Habilitation in early intervention based on ICF-DP** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Adaptation and rehabilitation 15 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of subject competence   * Competence area for the organization of the developing and rehabilitating environment (4)   Pre-service teachers have the necessary knowledge of the habilitation process, characteristics of body functions and structures, activity and participation, environmental factors as applied to children of the first year of life, early childhood, preschool children. They use a conceptual language used both in scientific research and in solving practical problems, taking into account national specifics | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * describe the content of the rehabilitation process, taking into account the assessment based on the ICF-DP * assess the need for habilitation for an early age child * plan the habilitation process and evaluate its effectiveness * saturate the habilitation process with game actions and developing environments |  |  | | --- | | **Research and forecasting 5 academic credits** | | The module provides pre-service teachers with advanced competencies in the organization and conduct of scientific research. The module also supports the professional development of pre-service teachers, forming their research orientation to practice and profession, as well as to improve their working environment and education in general. |  |  |  | | --- | --- | | Course title | **Definition and understanding of professional effectiveness** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Research and forecasting 5 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for interaction (4) * Competence area for the work environment (7) * Competence area for professional development (8, 9,10)   Pre-service teachers are able to build independent activities to build an educational environment. Pre-service teachers can conduct a reflective evaluation of their professional activities. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * evaluate and plan professional effectiveness * anticipate and predict the expected results of their activities and changes in the family and child * present an event or case for supervision * accept feedback from colleagues and clients * consider feedback and plan for changes |  |  |  | | --- | --- | | Course title | **Research as a forecast** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Research and forecasting 5 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical competence:   * Competence area for interaction (4) * Competence area for the work environment (7) * Competence area for professional development (8, 9,10)   Pre-service teachers are competent to assess child development, social situation, developmental situation using methods of observation, conversation, experiment, psychological diagnosis, screening, etc. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * reasonably select valid, reliable, and reliable research and evaluation methods * conduct an assessment based on compliance with ethical principles and norms using psychological methods * analyze and describe the assessment results * critical about the data received * organize productive cooperation and networking during the implementation of independent research. |  |  | | --- | | **FINAL ATTESTATION 8 academic 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** | | *History of Kazakhstan*  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 ХХ 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 | | *Philosophy*  Origins of a culture of thinking. The subject and method of philosophy. Foundations of philosophical understanding of the 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. | 5 | | **Module of socio-political knowledge (sociology, political studies, cultural studies, psychology)** | **8** | | *Sociology*  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 | | *Political studies*  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 | | *Cultural studies*  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 | | *Psychology*  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 techniques | 2 | | **Instrumental and communication module** | **25** | | *Russian /Kazakh language*  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 | | *Foreign language*  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 | | *Information and communication technologies*  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** | | *Physical education*  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** | | *Basics of Economics and Law*  Social production. The essence, forms and structure of capital. Costs and income of production in a market economy. Business. Financial system. Resource saving. Cyclical economic development. Kazakhstan in the system of global economic relations. Market emergence. Role of the government in business development. The main provisions of the Constitution and current legislation of the Republic of Kazakhstan. System of public administration institutions and the sphere of their authority. Aims, methods of state regulation of economy. Role of public sector in economy. Financial law and finance. Mechanism of interaction between substantive and procedural law. | 5 | | *Basics of an anti-corruption culture*  Anti-corruption culture: a concept, structure, tasks and functions. Anti-corruption awareness and anti-corruption culture: content, role and functions. Formation of anti-corruption culture in foreign countries. Anticorruption culture: mechanisms and institutions for development. Role of a family in fostering an anti-corruption culture. National bases of an anti-corruption culture. Social control as a mechanism of counteracting corruption. Political parties and the mass media as tools for building an anti-corruption culture. Anti-corruption education and upbringing. Anti-corruption legislation and legal liability for corruption. The constitutional basis of anti-corruption. Legal liability for crimes of corruption. Building an anti-corruption culture in civil service and business. | 5 | | *Entrepreneurial skills*  Types of entrepreneurship. Business. Financial system. Time management and project management. Stress management. Negotiation skills. Public speaking skills. Business management skills. Teamwork and leadership skills. Customer service skills. Financial skills. Analytical and problem solving skills. Critical thinking skills. Strategic thinking and planning skills. Technical skills. Time management and organisational skills. Branding, marketing and networking skills. Business management skills. | 5 | | *Ecology and life safety*  Basic laws of functioning of living organisms, ecosystems of different organisational levels, biosphere as a whole, their sustainability. Interaction of biosphere components and ecological consequences of human economic activity, in particular under conditions of nature management intensification. Modern understanding of the concepts, strategies and practical goals of sustainable development in different countries and in the Republic of Kazakhstan. Life safety, its main provisions. Risks, emergencies. Risk analysis, risk management. Human security systems. Modern destabilizing factors. Social, religious, political, economic threats, threats in everyday life. System of security institutions and legal regulation of their activities. | 5 | | *Research methods*  Research approaches. Inductive and deductive reasonings. Qualitative, quantitative, mixed methods research. Primary and Secondary research. Action research. Research designs – descriptive, correlational, experimental, quasi-experimental, cross-sectional, longitudinal, case study, ethnographic, exploratory, explanatory. Variables and hypotheses. Reliability and validity of research. Reproducibility and replicability. Random and systematic error. Triangulation. Sampling. Inclusion and exclusion criteria in sampling. Sampling methods. Collecting data – surveys, interviews, experiments, observational studies, systematic review. Data cleansing. Transcribing interviews. Analysing data – statistical analysis, content analysis, discourse analysis, thematic analysis, textual analysis. Research ethics. Peer review. | 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 – 17 academic credits** | | | | | | | | | | | Psychology in Education and Concepts of Interaction and Communication   4 academic credits |  |  | 4 |  |  |  |  | |  | | Educational Science and Key Theories of Learning 3 academic credits |  |  | 3 |  |  |  |  | |  | | Inclusive Educational Environment 3 academic 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 – 9 academic credits** | | | | | | | | | | | Teaching Methods and Technologies 5 academic credits |  |  |  | 5 |  |  |  | |  | | Assessment and Development 4 academic credits |  |  |  |  | 4 |  |  | |  | | **TEACHER AS A REFLECTIVE PRACTITIONER – 9 academic credits** | | | | | | | | | | | Pedagogical Research 4 academic credits |  |  | 4 |  |  |  |  | |  | | Research, Development and Innovation 5 academic credits |  |  |  |  |  |  | 5 | |  | | **TEACHER AS A FACILITATOR OF LEARNING (PEDAGOGICAL PRACTICE) – 25 academic credits** | | | | | | | | | | | Introduction to the teaching profession (1st year pedagogical practice) 2 academic credits |  | 2 |  |  |  |  |  | |  | | 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 | | **COMPULSORY COMPONENT** | | | | | | |  | |  | | **HISTORICAL AND PHILOSOPHICAL COMPETENCIES - 10 academic credits** | | | | | | | | | | | History of Kazakhstan 5 academic credits | 5 |  |  |  |  |  |  | |  | | Philosophy 5 academic credits |  |  |  |  | 5 |  |  | |  | | **SOCIO-POLITICAL KNOWLEDGE - 8 academic credits** | | | | | | | | | | | Sociology 2 academic credits |  |  | 2 |  |  |  |  | |  | | Political studies 2 academic credits |  |  | 2 |  |  |  |  | |  | | Cultural studies 2 academic credits |  |  | 2 |  |  |  |  | |  | | Psychology 2 academic credits |  |  | 2 |  |  |  |  | |  | | **INSTRUMENTAL AND COMMUNICATION - 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 – 8 academic credits** | | | | | | | | | | | Physical education 8 academic credits | 2 | 2 | 2 | 2 |  |  |  | |  | | **OPTIONAL COMPONENT - 5 academic credits** | | | | | | |  | |  | | Basics of Economics and Law 5 academic credits |  |  | 5 |  |  |  |  | |  | | Basics of an anti-corruption culture5 academic credits |  |  |  |  |  |  | |  | | Entrepreneurial skills 5 academic credits |  |  |  |  |  |  | |  | | Ecology and life safety 5 academic credits |  |  |  |  |  |  | |  | | Research methods 5 academic credits |  |  |  |  |  |  | |  | | **SUBJECT COMPONENT** | | | | | | |  | |  | | Biomechanics of movements 7 academic credits | 7 |  |  |  |  |  |  | |  | | Ergonomics and life skills 6 academic credits |  |  | 6 |  |  |  |  | |  | | Introduction to the specialty ergo pedagogy 6 academic credits |  |  |  |  |  |  | |  | | Activity and behavior theories 6 academic credits |  |  |  | 6 |  |  |  | |  | | Basic essentials of ergotherapy 6 academic credits |  |  |  |  |  |  | |  | | Ensuring well-being and life skills development 5 academic credits |  |  |  | 5 |  |  |  | |  | | International standards for health and well-being assessment 5 academic credits |  |  |  |  |  |  | |  | | Developmental psychology 4 academic credits |  |  |  | 4 |  |  |  | |  | | Morphofunctional features of the human body structure 5 academic credits |  | 5 |  |  |  |  |  | |  | | Special pedagogy and psychology 5 academic credits |  |  |  | 5 |  |  |  | |  | | Fundamentals of Neurology and Pathophysiology 5 academic credits |  |  | 5 |  |  |  |  | |  | | Fundamentals of psychopathology 5 academic credits |  |  |  |  |  |  | |  | | Adaptive physical education and inclusion 5 academic credits |  |  |  |  | 5 |  |  | |  | | Adaptive Physical education practice 5 academic credits |  |  |  |  |  | 5 |  | |  | | Modern methods of adaptive physical culture 5 academic credits |  |  |  |  | 5 |  |  | |  | | Private methods of adaptive physical culture 5 academic credits |  |  |  |  |  |  | |  | | Technologies and methods of teaching basic types of physical activity 4 academic credits |  |  |  |  | 4 |  |  | |  | | Theory and methodology of adaptive sports 4 academic credits |  |  |  |  |  |  | |  | | Models of wellness training 5 academic credits |  |  |  |  |  | 5 |  | |  | | Games and physical activities promoting development and learning 5 academic credits |  |  |  |  |  |  | |  | | Comprehensive assessment in the ergopedagogue work 5 academic credits |  |  |  |  | 5 |  |  | |  | | Ergotherapeutic interventions, their types and planning 5 academic credits |  |  |  |  |  | 5 |  | |  | | Evidence-based practice of sensory integration 7 academic credits |  |  |  |  |  |  | 7 | |  | | Neuropsychological diagnosis and correction 7 academic credits |  |  |  |  |  |  |  | | Therapeutic physical education and massage 6 academic credits |  |  |  |  |  |  | 6 | |  | | Group work based on activity 6 academic credits |  |  |  |  |  |  |  | | Applied Kinesiology 6 academic credits |  |  |  |  |  |  | 6 | |  | | Methods and technologies of hardware correction 6 academic credits |  |  |  |  |  |  |  | | Social - psychological adaptation and rehabilitation 5 academic credits |  |  |  |  |  | 5 |  | |  | | Technologies of support and monitoring of adaptation 5 academic credits |  |  |  |  |  |  | 5 | |  | | Environmental assessment and adaptation 5 academic credits |  |  |  |  |  |  |  | | Technical means of rehabilitation and adaptation 5 academic credits |  |  |  |  |  |  | 5 | |  | | Habilitation in early intervention based on ICF-DP 5 academic credits |  |  |  |  |  |  |  | | Definition and understanding of professional effectiveness 5 academic credits |  |  |  |  |  |  |  | | 5 | | Research as a forecast 5 academic credits |  |  |  |  |  |  |  | | | **FINAL ATTESTATION - 8 academic credits** | | | | | | | | | | | Final attestation |  |  |  |  |  |  |  | | 8 | | **Total academic credits** | **32** | **28** | **30** | **30** | **30** | **30** | **30** | | **30** | |  | | | | | | | | | | |
| 4.5 Requirements for the successful completion of curriculum |
| For successful completion of the educational program, students shall have:   * 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 *(Oral Exam, Written Exam, Diploma work, Research project, Development project, Organisational project, Strategic project, Art project);* * 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** | | А | 4.0 | 95-100 | Excellent | | А- | 3.67 | 90-94 | | В+ | 3.33 | 85-89 | Good | | В | 3.0 | 80-84 | | В- | 2.67 | 75-79 | | С+ | 2.33 | 70-74 | | С | 2.0 | 65-69 | Satisfactory | | С- | 1.67 | 60-64 | | D+ | 1.33 | 55-59 | | D | 1.0 | 50-54 | | FХ | 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 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-Khamsi. (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., Kynäslahti, 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.