**PROPOSAL FORM FOR AN ACADEMIC PROGRAMME**

**Special education**

Approved for 2023-2027

Contents

[1. General information 3](#_Toc137341167)

[2. Programme rationale 6](#_Toc137341168)

[3. Teacher’s professional competences 6](#_Toc137341169)

[4. Program structure and learning outcomes 10](#_Toc137341170)

[4.1. Structure of the pedagogical component 10](#_Toc137341171)

[4.2 Structure of the subject component 24](#_Toc137341172)

[4.3 The structure of the compulsory component 66](#_Toc137341173)

[4.4 Progression of the studies 71](#_Toc137341174)

[4.5 Requirements for the successful completion of curriculum 80](#_Toc137341175)

[5. Description of students’ work 80](#_Toc137341176)

[6. Evaluation methods/Assessment 81](#_Toc137341177)

[6.1 Assessment 81](#_Toc137341178)

[6.2 External evaluation 82](#_Toc137341179)

[7. Faculty requirements 84](#_Toc137341180)

[7.1 Faculty Requirements 84](#_Toc137341181)

[7.2 Additionally Required Faculty 84](#_Toc137341182)

[7.3 Required professional development of faculty 84](#_Toc137341183)

[7.4 Required additional administrative staff 85](#_Toc137341184)

[8. Resources 85](#_Toc137341185)

[8.1. Library Resources 85](#_Toc137341186)

[8.2. IT Resources 85](#_Toc137341187)

[8.3 Infrastructure 85](#_Toc137341188)

[9.1 Additional materials 86](#_Toc137341189)

[9.2 E-learning 86](#_Toc137341190)

[10. Approval 87](#_Toc137341191)

[**APPENDIX 1**: Main principles of the curriculum 88](#_Toc137341192)

[**Literature** 98](#_Toc137341193)

# 1. General information

|  |  |
| --- | --- |
| **1.1. Curriculum title** | **Special Education** |
| **1.2. Curriculum developing team:** | |  |  | | --- | --- | | **Leader university** | **Member universities** | | Abai Kazakh National Pedagogical University | Kazakh National Women's Teacher Training University | |  | A.Baitursynov Kostanay Regional University | |  | I. Zhansugurov Zhetysu University | |  | S.Amanzholov East Kazakhstan University | |  | South Kazakhstan State 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) "*Special education*" is a national teacher education curriculum, which has been designed in collaboration by various Kazakh universities and with international consulting. Due to the nature of a national curriculum, the descriptive texts within the curriculum do not provide specific information but highlight general pedagogical principles and cross-cutting themes (see also Annex 1.). The more detailed descriptions of e.g. methodologies and assessment will be identified in the implementation plans of the universities, considering also institutional and regional specific conditions.  Educational programme (EP) "*Special education*" is a teacher education programme for pre-service teachers who wish to specialize as special education teacher working with children with disabilities (in schools, colleges, high schools). EP consists of a pedagogical component 60 academic credits (incl. pedagogical practice), a compulsory component 56 academic credits, and a subject component 124 academic credits (incl. a final attestation of 8 academic credits).  Subject component consists of 5 modules: “Assessment of special educational needs”, “Education of persons with special educational needs”, “Subject methods of teaching children with disabilities”, “Inclusive culture and pedagogical consulting”, “Research and forecasting”.  During the EP, pre-service teachers develop their professional competences in assessing special educational needs and in providing psychological and pedagogical support for children with disabilities (1-group of persons with special educational needs) in various educational settings.  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 identification of special educational needs**  1. Pre-service teachers are able to determine the special educational needs of students in accordance with the regulatory legal acts of the Republic of Kazakhstan. 2. Pre-service teachers are able to apply standardized methods of comprehensive assessment of special educational needs.  * **Competence area for support in training**  1. Pre-service teachers are able to design and evaluate educational processes and learning environment in accordance with the educational needs of the child. 2. Pre-service teachers are able to analyze, select and apply in practice advanced pedagogical approaches, teaching methods for persons with special educational needs.  * **Competence area for designing the educational process and learning environment**  1. Pre-service teachers are capable of implementing individual development and special curriculum for children with disabilities (the group of children with special educational needs) in various educational settings. 2. Pre-service teachers are able to carry out dynamic monitoring to assess the effectiveness of the psychological and pedagogical influence.  * **Competence area for providing advisory assistance and cultural understanding**  1. Pre-service teachers are able to provide advisory assistance to families with children with special educational needs, as well as to teachers working in conditions of inclusion. 2. Pre-service teachers are able to organize pedagogical cooperation in a complex situation with versatile attitudes (child - teachers - parent). 3. Pre-service teachers are able to carry out activities to form a positive public opinion on special education and popularize ideas and knowledge among the population in the field of special educational needs.  * **Competence area for research and forecasting**  1. Pre-service teachers are able to systematize the achievements of Kazakh and international research in the field of special education. |
| **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** | | **ASSESSMENT OF SPECIAL EDUCATIONAL NEEDS** | **30** | | **University Component** | **20** | | Fundamentals of neuropathology | 5 | | Special psychology | 5 | | Workshop on differential diagnosis | 5 | | Comprehensive assessment of children with disorders of behavior and emotional-volitional sphere | 5 | | **Optional Component** | **10** | | Anatomy, physiology and pathology of the organs of hearing, vision, speech | 5 | | Anatomy and physiology of the central nervous system and higher nervous activity | | Psychological and pedagogical diagnostics of children with disabilities | 5 | | Comprehensive assessment of special educational needs | | **EDUCATION OF PERSONS WITH SPECIAL EDUCATIONAL NEEDS** | **44** | | **University Component** | **20** | | Special pedagogy | 5 | | Speech therapy | 5 | | Neuropsychological approaches in special education | 5 | | Design and technology of work with children with autism spectrum disorder | 5 | | **Optional Component** | **24** | | Oligophrenopedagogy | 5 | | Neurological fundamentals of speech therapy | | Surdopedagogy | | Typhlopedagogy | | Universal Learning Design | 4 | | Support in the children education with disabilities | | Correction of cognitive activity | 5 | | Speech therapy work with preschool children | | Sign dactyl speech | | Teaching literacy to the blind in Braille | | Workshop on social and household orientation | 5 | | Workshop on correction of oral and written speech | | Workshop on the development of auditory perception and pronunciation formation | | Workshop on the development of visual perception and spatial orientation of children with visual impairments | | Design and technology of work with children with multiple disabilities | 5 | | Speech therapy for systemic speech disorders | | Design and technology of operation in cochlear implantation | | Typhlotechnical means and technologies for teaching children with visual impairments | | **SUBJECT METHODS OF TEACHING CHILDREN WITH DISABILITIES** | **19** | | **University Component** | **10** | | Special methods of language teaching | 5 | | Special methods of teaching mathematics | 5 | | **Optional Component** | **9** | | Designing individual programs for children with intellectual disabilities | 4 | | Designing speech therapy work with general speech underdevelopment | | Designing individual programs for children with hearing impairment | | Designing individual programs for visually impaired children | | Special teaching methodology of the cycle of subjects "Technology and Art" | 5 | | Speech therapy work in case of violations of the sound-pronouncing and tempo-rhythmic side of speech | | Subject-practical training | | Methods of teaching the subject "Knowledge of the world" | | **INCLUSIVE CULTURE AND PEDAGOGICAL CONSULTING** | **14** | | **University Component** | **9** | | Accessibility in education and support in inclusion | 5 | | Family-centered support for people with disabilities | 4 | | **Optional Component** | **5** | | Interdisciplinary interaction | 5 | | Organization of psychological and pedagogical support service | | **RESEARCH AND FORECASTING** | **9** | | **University Component** | **4** | | Inclusive practice | 4 | | **Optional Component** | **5** | | Design of scientific research | 5 | | Research as a forecast | | **FINAL ATTESTATION** | **8** | | **Total Academic Credits** | **124** |  |  | | --- | | **Assessment of special educational needs 30 academic credits** | | During the module, pre-service teachers investigate the regulatory systems of human body and their interaction, as well as the algorithm and criteria for the team assessment of special educational needs. They also explore methodological tools for the evaluation of child’s development. |  |  |  | | --- | --- | | Course title | **Fundamentals of neuropathology** | | Component | Subject Component, University Component | | Cycle | Major disciplines | | Module | Assessment of special educational needs 30 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 professional development (10) * Competence area for identification of special educational needs(1)   Pre-service teachers become familiar with the ontogenesis of the nervous system and the relationship between the structure and functions of the central nervous system. They examine the causes, mechanisms, symptoms, and characteristics of disorders of the central nervous system. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * explain the structure and functions of the central nervous system; * understand the impact of disorders of the nervous system on the development of the child, his neurological status; * apply methods of prevention of neurotic reactions and conditions. |  |  |  | | --- | --- | | Course title | **Special psychology** | | Component | Subject Component, University Component | | Cycle | Major disciplines | | Module | Assessment of special educational needs 30 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 professional development (8,10) * Competence area for identification of special educational needs(1)   Pre-service teachers become familiar with the patterns of child's development. They explore the concepts and theories of the development of persons with disabilities, the characteristics of cognitive processes, the personal sphere and interpersonal attitudes of persons with disabilities. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * explain the general patterns and features of the development of children with special needs; * reflect and interpret the teachings of L.S.Vygotsky (the interaction of biological and social, the structure of disturbed development, the zone of immediate and actual development) in modern realities; * analyze, select and put into practice knowledge in the field of special psychology; * compare and evaluate cognitive processes and the personal sphere of various categories of children with disabilities. |  |  |  | | --- | --- | | Course title | **Workshop on differential diagnosis** | | Component | Subject Component, University Component | | Cycle | Major disciplines | | Module | Assessment of special educational needs 30 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 professional development (8, 9, 10)   + Competence area for identification of special educational needs(1,2)   Pre-service teachers explore the methods and criteria of differential diagnosis. They consider the diversity and distinguish from each other similar conditions. They also differentiate the degree and nature of disorders of mental, speech and emotional development. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * explain the methods and criteria of differential diagnosis; * identify primary and secondary violations; * evaluate the features of development with hearing, vision, and speech deficiencies, intelligence; * apply a basic set of techniques and practical methods of differential diagnosis. |  |  |  | | --- | --- | | Course title | **Comprehensive assessment of children with disorders of behavior and emotional-volitional sphere** | | Component | Subject Component, University Component | | Cycle | Major disciplines | | Module | Assessment of special educational needs 30 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 professional development(8, 9, 10)   + Competence area for identification of special educational needs(1,2)   Pre-service teachers investigate the classification of emotional disorders and their symptoms such as autism spectrum disorders, hyperactivity and attention deficit disorder, and emotional-depressive states. They build their understanding of the modern challenges to the emotional well-being of children. They also characterize persons with disorders of the emotional-volitional sphere and behavior. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * explain the classification of emotional disorders and their symptoms; * compare clinical and psychological and psychological-pedagogical systematization of children with autism; * carry out a comprehensive assessment of the development of children with autism spectrum disorder on the basis of standardized methods; * create collaboration with the subjects of the educational process; * critically evaluate one’s own professional activities. |  |  |  | | --- | --- | | Course title | **Anatomy, physiology and pathology of the organs of hearing, vision, speech** | | Component | Subject Component, Optional Component | | Cycle | Major disciplines | | Module | Assessment of special educational needs 30 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 professional development (10) * Competence area for identification of special educational needs(1)   Pre-service teachers examine the anatomy and physiology of the organs of vision, hearing, speech and the central nervous system. They also explore the methods of prevention of disorders and the mechanism of screening for early development disorders. Pre-service teachers find ways to adapt the external environment for children with damage in their sensory systems and central nervous system. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * explain the patterns of the structure and functioning of sensory systems and the central nervous system in normal and abnormal conditions; * analyze the results of screening for early development disorders: prenatal, neonatal, audiological, ophthalmological and psychophysical disorders; * identify obstacles to further development and learning. |  |  |  | | --- | --- | | Course title | **Anatomy and physiology of the central nervous system and higher nervous activity** | | Component | Subject Component, Optional Component | | Cycle | Major disciplines | | Module | Assessment of special educational needs 30 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 professional development (10) * Competence area for identification of special educational needs(1)   Pre-service teachers examine the anatomy and physiology of the central nervous system and higher nervous activity, as well as its impact on speech and cognitive processes. They also investigate the early development screenings in the Republic of Kazakhstan. Pre-service teachers explore the essence of methods of preventing disorders and find ways to adapt the external environment to persons with disorders in the central nervous system and higher nervous activity. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * explain the patterns of the structure and functioning of the central nervous system in normal and abnormal conditions; * analyze the results of screening for early development: prenatal, neonatal, audiological, ophthalmological and psychophysical disorders; * identify obstacles to further development and learning. |  |  |  | | --- | --- | | Course title | **Psychological and pedagogical diagnostics of children with disabilities** | | Component | Subject Component, Optional Component | | Cycle | Major disciplines | | Module | Assessment of special educational needs 30 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 professional development (8,10) * Competence area for identification of special educational needs(1,2)   Pre-service teachers evaluate professional and ethical standards and principles of diagnostics. They explore modern approaches and methods of psychological and pedagogical diagnostics, and build their understanding of the role of psychological, medical and pedagogical consultations in family counseling. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * carry out a comparative analysis of psychological and pedagogical diagnostics; * carry out an assessment of special educational needs in accordance with the criteria and algorithm of regulatory legal acts; * use methodological tools of psychological and pedagogical examination of the child and ways of analysis. |  |  |  | | --- | --- | | Course title | **Comprehensive assessment of special educational needs** | | Component | Subject Component, Optional Component | | Cycle | Major disciplines | | Module | Assessment of special educational needs 30 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 professional development (8,10) * Competence area for identification of special educational needs(1,2)   Pre-service teachers explore modern approaches, stages and evaluation methods of the development of children with disabilities. They evaluate professional and ethical standards and principles of diagnosis and build their understanding of the role of psychological, medical and pedagogical consultations in family counseling. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * carry out an assessment of special educational needs in accordance with the criteria and algorithm of regulatory legal acts; * use methodological tools of psychological and pedagogical examination of the child and ways of analysis. |  |  | | --- | | **Education of persons with special educational needs 44 academic credits** |  |  | | --- | | During the module, pre-service teachers design educational processes and learning environment taking into account the diversity and well-being of students. They also implement individual development and special educational programs for children with disabilities in various educational settings. |  |  |  | | --- | --- | | Course title | **Special pedagogy** | | Component | Subject Component, University Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 identification of special educational needs (1,2) * Competence area for support in training (3, 4)   Pre-service teachers investigate the history, modern trends, principles and methods of special education of persons with special educational needs. They compare the system of state support for children with the main curriculum in the Republic of Kazakhstan and in the world. Pre-service teachers build their understanding of the organization of work, goals and content of the activities of psychological, medical and pedagogical counseling in rehabilitation centers, special preschool organizations, special school organizations, psychological and educational offices. They explore the methods of teaching and upbringing of persons with disabilities according to the main curriculum. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * identify the subject areas of special pedagogy; * explain the content of the work of a special teacher in educational organizations and in conditions of inclusion; * analyze educational processes and the learning environment and apply forms, methods, technologies for teaching and educating people with special educational needs. |  |  |  | | --- | --- | | Course title | **Speech theraphy** | | Component | Subject Component, University Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8,9,10) * Competence area for support in training (3) * Competence area for designing the educational process and learning environment (5)   Pre-service teachers develop a holistic understanding of speech disorders and their causes and mechanisms. They distinguish the causes and typology of speech disorders, the characteristics of speech development in hearing, vision, intellectual, motor and autism disorders. Pre-service teachers model strategies and technologies for solving specific tasks of evaluation, planning, and conducting classes on the development and correction of speech. They use knowledge, forms, methods and technologies of teaching in accordance with the speech characteristics and the possibilities of a child. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * critically analyse and evaluate the child's speech development to predict the results of the work; * plan and predict conditions affecting speech development and learning; * develop their skills in speech therapy practice; * monitor the achievements of the child with speech disorders. |  |  |  | | --- | --- | | Course title | **Neuropsychological approaches in special education** | | Component | Subject Component, University Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for identification of special educational needs (1) * Competence area for designing the educational process and learning environment (6) * Competence area for providing advisory assistance and cultural understanding (7)   Pre-service teachers investigate the theory of A.R. Luria about the functional blocks of the brain. They also examine modern research of a child's mental development. Pre-service teachers develop their skills in neuropsychological analysis of the state of higher mental functions: strong and weak components of a child's higher mental functions. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * apply methods and techniques of neuropsychological diagnostics; * implement a neuropsychological approach to the prevention of learning difficulties; * use health-saving learning technologies. |  |  |  | | --- | --- | | Course title | **Design and technology of work with children with autism spectrum disorder** | | Component | Subject Component, University Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for support in training (4) * Competence area for designing the educational process and learning environment (5)   Pre-service teachers explore and apply strategies and tactics of psychological and pedagogical work with children with autism spectrum disorder. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * design support programs for children with autism spectrum disorder based on a comprehensive assessment; * analyze and design the spatial environment and learning processes in accordance with the educational needs of children with autism spectrum disorder; * select and put into practice advanced pedagogical approaches, technologies for teaching children with autism spectrum disorder |  |  |  | | --- | --- | | Course title | **Oligophrenopedagogy** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 professional development (8, 9, 10) * Competence area for support in training (3,4)   This course is offered to pre-service teachers who want to specialize in oligophrenopedagogy.  Pre-service teachers investigate the historical aspect of the development of the branch of special education for persons with intellectual disabilities. They analyze the clinical-pedagogical and psychological-pedagogical classifications of persons with intellectual disabilities and apply the principles, forms, methods, and technologies of training and educating persons with intellectual disabilities. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * critically analyze standard curricula and programs for children with intellectual disabilities; * design educational processes and learning environment in accordance with the educational needs of the child; * analyze advanced pedagogical approaches and technologies for teaching and educating people with intellectual disabilities; * plan a set of measures to support diversity. |  |  |  | | --- | --- | | Course title | **Neurological fundamentals of speech therapy** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 professional development (8, 9, 10) * Competence area for support in training (3,4)   This course is offered to pre-service teachers who want to specialize in speech therapy.  Pre-service teachers explore modern concepts of theoretical and methodological foundations of neuropathology and speech therapy, their basic categories, and patterns of mental development. They discover the essence of disorders of psycho-speech development and the neurological fundamentals of speech disorders. Pre-service teachers also evaluate the biosocial prerequisites for the formation of normal and impaired speech of a child, brain mechanisms of speech realization, as well as speech disorders and syndromes caused by damage to the nervous system. They also apply knowledge in teaching to support the positive development of students. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * analyze the mechanisms of speech disorders, types of neurological pathology causing them; * analyze the anamnesis data of children and adolescents with speech disorders, take them into account when organizing correctional work for speech disorders and other higher cortical functions; * apply methods for detecting speech and non–speech symptoms and functions - gnosis, praxis, phasis. |  |  |  | | --- | --- | | Course title | **Surdopedagogy** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 professional development (8, 9, 10) * Competence area for support in training (3,4)   This course is offered to pre-service teachers who want to specialize in sign language teaching.  Pre-service teachers examine the historical aspect of the development of the branch of special education for sign language teaching. They analyze the clinical-pedagogical and psychological-pedagogical classifications of persons with hearing impairments. They also apply the principles, forms, methods, and technologies of training and educating persons with hearing impairments. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   1. critically analyze standard curricula and programs for children with with disabilities; 2. design educational processes and learning environment in accordance with the educational needs of the child with hearing impairment; 3. analyze advanced pedagogical approaches and technologies for teaching and educating people with disabilities; 4. plan a set of measures to support diversity. |  |  |  | | --- | --- | | Course title | **Typhlopedagogy** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 academic credits | | Academic credits | 5 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence:   1. Competence area for professional development (8, 9, 10) 2. Competence area for support in training (3,4)   This course is offered to pre-service teachers who want to specialize in typhlopedagogics.  Pre-service teachers investigate the historical aspect of the development of the branch of special education for typhlopedagogics. They analyze the clinical-pedagogical and psychological-pedagogical classifications of persons with visual impairments. They also apply the principles, forms, methods, and technologies of training and educating persons with visual impairments. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   1. critically analyze standard curricula and programs for children with with disabilities; 2. design educational processes and learning environment in accordance with the educational needs of visually impaired child; 3. analyze advanced pedagogical approaches and technologies for teaching and educating people with disabilities; 4. plan a set of measures to support diversity. |  |  |  | | --- | --- | | Course title | **Universal Learning Design** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 academic credits | | Academic credits | 4 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence:   1. Competence area for professional development (8, 9, 10) 2. Competence area for identification of special educational needs (1,2) 3. Competence area for support in training (3)   Pre-service teachers investigate the basic principles of creating a universal educational design and the support stages of the learning environment. They design the development of educational materials and the amount of pedagogical support depending on the educational needs of a child. Pre-service teachers use universal teaching methods, as well as additional and alternative communication. They contribute to the formation of a school culture that supports participation, well-being and sustainable development of students. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * analyze learning processes and learning environment in terms of accessibility; * provide professional support in accordance with the educational trajectory of a child; * implement flexible models of the educational process: adaptation curriculum with a change in the ways of evaluating academic achievements; * apply different trajectories of support for children with special educational needs; * use universal teaching methods, multimodal teaching, simple language, assistive technologies, additional and alternative communication. |  |  |  | | --- | --- | | Course title | **Support in the children education with disabilities** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 academic credits | | Academic credits | 4 | | Course / competence description | The purpose of this course is to improve the following areas of pedagogical and subject competence:   1. Competence area for professional development (8, 9, 10) 2. Competence area for identification of special educational needs (1,2) 3. Competence area for support in training (3)   Pre-service teachers explore the basic principles and stages of support in the learning environment. They design the amount of pedagogical support depending on the educational needs of the child. They also contribute to the formation of a school culture that supports participation, well-being and sustainable development. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * analyze learning processes and learning environment in terms of accessibility; * provide professional support in accordance with the educational trajectory of the child; * implement flexible models of the educational process: adaptation of the curriculum with a change in the ways of evaluating academic achievements; * apply different trajectories of support for children with special educational needs; * use universal teaching methods, multimodal teaching, simple language, assistive technologies, additional and alternative communication. |  |  |  | | --- | --- | | Course title | **Correction of cognitive activity** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for support in training (3) * Competence area for designing the educational process and learning environment (5)   This course is offered to pre-service teachers who want to specialize in oligophrenopedagogy.  Pre-service teachers develop the necessary knowledge in the field of correctional and developmental work in cases of intellectual disabilities. They practice teaching skills using universal, alternative, and auxiliary methods. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * critically analyze the content of a typical curriculum for children with intellectual disabilities; * plan and predict conditions affecting learning; * develop own teaching skills; * monitor the achievements of students with intellectual disabilities. |  |  |  | | --- | --- | | Course title | **Speech therapy work with preschool children** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for support in training (3) * Competence area for designing the educational process and learning environment (5)   This course is offered to pre-service teachers who want to specialize in speech therapy.  Pre-service teachers develop a holistic view in the field of correctional and developmental work with preschool children with phonetic and phonemic disorders and dyslalia. They model strategies and technologies for solving specific speech therapy tasks and examination, as well as to plan and conduct speech therapy classes. They also use knowledge, forms, methods and technologies of teaching in accordance with the speech characteristics and capabilities of a preschool child. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   1. critically analyze and evaluate the child's speech development in order to predict the results of speech therapy work ; 2. plan and predict conditions affecting learning; 3. develop own skills of speech therapy practice; 4. monitor the achievements of a preschool child with a phonetic and phonemic disorder or dyslalia. |  |  |  | | --- | --- | | Course title | **Sign dactyl speech** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for support in training (3) * Competence area for designing the educational process and learning environment (5)   This course is offered to pre-service teachers who want to specialize in sign language teaching.  Pre-service teachers develop their understanding that sign language is a linguistic system that has its own vocabulary and grammar. They master competent sign language to facilitate the development of the training program for deaf children and will ensure their real integration into society. Pre-service teachers develop the necessary knowledge in the field of correctional and developmental work in hearing disorders and learn skills of teaching sign dactylic speech to deaf children. They also develop their skills of teaching using sign dactylic speech and other auxiliary techniques. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   1. critically analyze the content of a typical curriculum on sign dactyl speech in order to predict learning outcomes; 2. plan and predict the conditions affecting the work of a sign language teacher; 3. develop own sign language teaching skills; 4. monitor the communication and achievements of a student with hearing impairments. |  |  |  | | --- | --- | | Course title | **Teaching literacy to the blind in Braille** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for support in training (3) * Competence area for designing the educational process and learning environment (5)   This course is offered to pre-service teachers who want to specialize in typhlopedagogics.  Pre-service teachers analyze the characteristics of teaching literacy to the blind and visually impaired students. They investigate the difficulties of mastering writing and reading with profound visual impairments and ways to overcome them. They also practice the methodology of teaching literacy in Braille. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   1. critically analyze the content of a standard curriculum on "Literacy training" for children with visual impairments in order to predict learning outcomes; 2. plan the content of the work on teaching literacy to blind students; 3. develop own teaching skills and typhlopedagogical work; 4. monitor the achievements of a visually impaired student. |  |  |  | | --- | --- | | Course title | **Workshop on social and household orientation** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in sign language teaching.  Pre-service teachers develop the necessary knowledge about the patterns, facts, and phenomena of cognitive development of children with intellectual disabilities. They explore the technologies of teaching depending on the type and degree of disorder. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * analyze and plan the conditions, learning processes and learning environment that affect learning; * predict the learning outcomes of a child with intellectual disabilities; * carry out practical pedagogical activity with children with intellectual disabilities in various educational conditions; * evaluate own pedagogical competences and set goals for professional growth. |  |  |  | | --- | --- | | Course title | **Workshop on correction of oral and written speech** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in speech therapy.  Pre-service teachers develop a holistic understanding of writing disorders (dysgraphy, dyslexia, dysorphography) and model strategies and technologies for solving specific speech therapy tasks and examination, as well as plan and conduct speech therapy classes with school-age children with reading and writing disorders (dyslalia, dyslexia, dysorphography). They use knowledge, forms, methods, information and communication technologies, and computer technologies of teaching in accordance with the speech characteristics and capabilities of the student. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   1. analyze and plan the conditions, learning processes and learning environment that affect the learning of a student with writing disorders; 2. predict the results of speech therapy work in case of writing disorders (dyslexia, dysgraphy and dysorphography); 3. carry out practical speech therapy work with children with writing disorders (dyslexia, dysgraphy and dysorphography) in various educational settings; 4. evaluate own pedagogical competencies and set goals for professional growth. |  |  |  | | --- | --- | | Course title | **Workshop on the development of auditory perception and pronunciation formation** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in sign language teaching.  Pre-service teachers develop the necessary knowledge about the patterns, facts, and phenomena of cognitive development of children with hearing impairments. They explore the technology of formation of speech hearing and the pronunciation side of speech of the hard of hearing, hard of hearing and late deaf. They also define conditions of effective work on the development of auditory perception considering the auditory function, the dosage of the load, the use of auxiliary means, the selection of speech material, etc. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   1. analyze and plan the conditions, learning processes and learning environment that affect learning; 2. predict the learning outcomes of a hearing impaired child; 3. carry out practical pedagogical activities with children with hearing impairments on the development of auditory perception and the formation of pronunciation in various educational conditions; 4. evaluate own pedagogical competencies and set goals for professional growth. |  |  |  | | --- | --- | | Course title | **Workshop on the development of visual perception and spatial orientation of children with visual impairments** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in typhlopedagogics.  Pre-service teachers develop the necessary knowledge about the laws, facts, and phenomena of cognitive development of children with visual impairments. They explore the technologies of their work on the formation of students’ holistic view of the world, mastering generalized ways of orientation in space, and overcoming isolation in society. They also learn skills to develop visual perception of students, depending on the degree and type of visual impairment. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * analyze and plan the conditions, learning processes and learning environment that affect learning; * predict the learning outcomes of a visually impaired child; * teach the use of the received polysensory information about space in practical orientation; to develop skills to work with layouts and diagrams of premises, individual routes, neighborhoods and settlements; to transfer the formed ones to practice; * form the skills of general cultural, communicative competence of students with visual impairment; * evaluate own pedagogical competencies and set goals for professional growth. |  |  |  | | --- | --- | | Course title | **Design and technology of work with children with multiple disabilities** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for support in training (3,4) * Competence area for designing the educational process and learning environment (5)   This course is offered to pre-service teachers who want to specialize in oligophrenopedagogy.  Pre-service teachers develop the necessary knowledge about the structure of the defect in multiple violations. They design teaching and technology used depending on the type and degree of disorder. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * know the possibilities of alternative communication and multimodal techniques * plan work with children with multiple disabilities; * they are able to identify, differentiate, and solve problems related to the child's education; * carry out practical pedagogical activity with children with multiple disabilities in various educational conditions * use alternative communication and teaching aids in practice. |  |  |  | | --- | --- | | Course title | **Speech therapy for systemic speech disorders(alalia, aphasia)** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for support in training (3,4) * Competence area for designing the educational process and learning environment (5)   This course is offered to pre-service teachers who want to specialize in speech therapy.  Pre-service teachers develop a holistic understanding of systemic speech disorders (alalia, aphasia). They plan solutions to specific speech therapy tasks and examinations, as well as to conduct speech therapy classes with children /adults considering the type of disorder (alalia, aphasia). They also use knowledge, forms, methods, techniques, and information and computer technologies in teaching in accordance with speech features and capabilities. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   1. plan work with children/adults with systemic speech disorders (alalia, aphasia) 2. identify, differentiate, and solve problems related to differential diagnosis and the strategy of speech therapy; 3. carry out practical speech therapy work with children / adults with systemic speech disorders (alalia / aphasia) in various educational settings; 4. use alternative communication and teaching aids in practice. |  |  |  | | --- | --- | | Course title | **Design and technology of operation in cochlear implantation** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for support in training (3,4) * Competence area for designing the educational process and learning environment (5)   This course is offered to pre-service teachers who want to specialize in sign language teaching.  Pre-service teachers develop the necessary knowledge about the features of rehabilitation of children with cochlear implantation. They explore the technology of working on sound localization, as well as design teaching and technology used with children with cochlear implantation. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * explain the possibilities of cochlear implantation, features of auditory-speech work; * identify, differentiate, and solve problems related to the education of a child with cochlear implantation; * carry out practical pedagogical activities with children with post-cochlear implantation in various educational conditions. |  |  |  | | --- | --- | | Course title | **Typhlotechnical means and technologies for teaching children with visual impairments** | | Component | Subject component, Optional Component | | Cycle | Major disciplines | | Module | Education of persons with special educational needs 44 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for support in training (3,4) * Competence area for designing the educational process and learning environment (5)   This course is offered to pre-service teachers who want to specialize in typhlopedagogics.  Pre-service teachers develop the necessary knowledge about the design of teaching and technology used depending on the type and degree of disorder. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * explain the possibilities of alternative communication and multimodal techniques * plan work with children with multiple visual impairments; * identify, differentiate, and solve problems related to the child's education; * carry out practical pedagogical activity with children with multiple visual impairments in various educational conditions * use alternative communication and teaching aids in practice. |  |  | | --- | | **Subject methods of teaching children with disabilities 19 academic credits** |  |  | | --- | | During the module, pre-service teachers develop their understanding of the methodological foundations of teaching disciplines and their readiness to teach the subject as a teacher. They also develop their knowledge of interactive and student-oriented teaching methods and their applications. |  |  |  | | --- | --- | | Course title | **Special methods of language teaching** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Subject methods of teaching children with disabilities 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   Pre-service teachers explore the methodology and specifics of teaching the subject using traditional, universal, and alternative means. They critically analyze the content of the curriculum, and plan and conduct lessons on the subject. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * critically analyze the content of a standard curriculum by subject; * design the learning process and learning environment for the subject; * predict learning outcomes; * develop own teaching skills; * adapt educational materials and methods of their presentation; * use universal, multimodal, alternative, auxiliary learning tools, simple speech instructions; * monitor the student's achievements. |  |  |  | | --- | --- | | Course title | **Special methods of teaching mathematics** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Subject methods of teaching children with disabilities 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   Pre-service teachers explore the methodology and specifics of teaching the subject using traditional, universal, and alternative means. They critically analyze the content of the curriculum, and plan and conduct lessons on the subject. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * critically analyze the content of a standard curriculum by subject; * design the learning process and learning environment for the subject; * predict learning outcomes; * develop own teaching skills; * adapt educational materials and methods of their presentation; * use universal, multimodal, alternative, auxiliary learning tools, simple speech instructions; * monitor the student's achievements. |  |  |  | | --- | --- | | Course title | **Designing individual programs for children with intellectual disabilities** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Subject methods of teaching children with disabilities 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in oligophrenopedagogy.  Pre-service teachers distinguish the difference between individually developing and individual educational programs, and the scope of their application. They develop programs considering the type of disorder and age of a student and implement the programs. They also monitor the effectiveness of the programs. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * apply modern tools for building programs: a case study-management, case management; * design the learning process according to an individually developing or individual curriculum with intellectual/speech/hearing/vision impairment; * adapt learning tasks and present them to the student; * carry out dynamic monitoring of the course of psychological-pedagogical impact in order to assess its effectiveness. |  |  |  | | --- | --- | | Course title | **Designing speech therapy work with general speech underdevelopment** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Subject methods of teaching children with disabilities 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in speech therapy.  Pre-service teachers develop a holistic view of the general underdevelopment of speech and plan solutions to specific speech therapy tasks, examinations, and speech therapy classes with children at different levels of general speech underdevelopment. They also use knowledge, forms, methods, techniques, and information and computer technologies in teaching in accordance with the speech characteristics and capabilities of children at different levels of general speech underdevelopment. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   1. differentiate general speech underdevelopment from other types of speech disorders based on critical analysis; 2. design individual/group speech therapy work at various levels of general speech underdevelopment; 3. conduct speech therapy classes; 4. carry out dynamic monitoring of the course of speech therapy impact to assess its effectiveness. |  |  |  | | --- | --- | | Course title | **Designing individual programs for children with hearing impairment** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Subject methods of teaching children with disabilities 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in sign language teaching.  Pre-service teachers distinguish the difference between individually developing and individual educational programs and the scope of their application. They also develop programs considering the educational needs, the degree of hearing impairment and the age of a student and implement the programs. Pre-service teachers monitor the effectiveness of the programs. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * apply modern tools for building programs: a case study-management, case management; * design the learning process according to an individual developmental program or individual curriculum with hearing impairment; * adapt learning tasks and present them to the student; * carry out dynamic monitoring of the course of psychological-pedagogical impact in order to assess its effectiveness. |  |  |  | | --- | --- | | Course title | **Designing individual programs for visually impaired children** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Subject methods of teaching children with disabilities 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in typhlopedagogics.  Pre-service teachers distinguish the difference between individually developing and individual educational programs and the scope of their application. They develop programs considering the type of disorder and the age of a student and implement the programs. Pre-service teachers also monitor the effectiveness of the programs. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * apply modern tools for building programs: a case study-management, case management; * design the learning process according to an individual developmental program or individual curriculum with hearing impairment; * adapt learning tasks and present them to the student; * carry out dynamic monitoring of the course of psychological-pedagogical impact in order to assess its effectiveness. |  |  |  | | --- | --- | | Course title | **Special teaching methodology of the cycle of subjects "Technology and Art"** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Subject methods of teaching children with disabilities 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in oligophrenopedagogy, speech therapy, or typhlopedagogy.  Pre-service teachers master the methodology and specifics of teaching the subject using traditional, universal, and alternative means. They critically analyze the content of the curriculum and plan and conduct lessons on the subject. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * critically analyze the content of a standard curriculum by subject; * design the learning process and learning environment for the subject; * predict learning outcomes; * develop own teaching skills; * adapt educational materials and methods of their presentation; * use universal, multimodal, alternative, auxiliary learning tools, simple speech instructions; * monitor the student's achievements. |  |  |  | | --- | --- | | Course title | **Speech therapy work in case of violations of the sound-pronouncing and tempo-rhythmic side of speech** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Subject methods of teaching children with disabilities 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in speech therapy.  Pre-service teachers develop a holistic understanding of the disorders of the sound-pronouncing and tempo-rhythmic side of speech (dysarthria, rhinolalia, bradylalia, tachylalia, stuttering**).** They differentiate similar conditions, solve specific speech therapy tasks of examination, and conduct speech therapy classes with children with disorders of the sound-pronouncing and tempo-rhythmic side of speech (dysarthria, rhinolalia, bradylalia, tachylalia, stuttering). They also use knowledge, forms, methods, techniques, and information and computer technologies in teaching in accordance with the speech characteristics and capabilities of children with disorders of the sound-pronouncing and tempo-rhythmic side of speech (dysarthria, rhinolalia, bradylalia, tachylalia, stuttering). | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * critically analyze the child's speech status; * design speech therapy work taking into account the type of violation; * predict the results of speech therapy; * develop own skills of speech therapy practice; * use universal, multimodal, alternative, auxiliary learning tools; * monitor the speech development of students. |  |  |  | | --- | --- | | Course title | **Subject-practical training** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Subject methods of teaching children with disabilities 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in oligophrenopedagogy, speech therapy, or typhlopedagogy.  Pre-service teachers master the methodology and specifics of teaching the subject using traditional, universal, and alternative means. They also critically analyze the content of the curriculum and plan and conduct lessons on the subject. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * critically analyze the content of the standard curriculum on the subject of "Subject-practical training"; * design the learning process and learning environment for the subject; * predict learning outcomes; * develop own teaching skills; * adapt educational materials and methods of their presentation; * use universal, multimodal, alternative, auxiliary learning tools, simple speech instructions; * monitor the student's achievements. |  |  |  | | --- | --- | | Course title | **Methods of teaching the subject "Knowledge of the world"** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Subject methods of teaching children with disabilities 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for designing the educational process and learning environment (5,6)   This course is offered to pre-service teachers who want to specialize in – oligophrenopedagogy, speech therapy, or typhlopedagogy.  Pre-service teachers master the methodology and specifics of teaching the subject using traditional, universal, and alternative means. They also critically analyze the content of the curriculum and plan and conduct lessons on the subject. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   1. critically analyze the content of a standard curriculum by subject; 2. design the learning process and learning environment for the subject; 3. predict learning outcomes; 4. develop own teaching skills; 5. adapt educational materials and methods of their presentation; 6. use universal, multimodal, alternative, auxiliary learning tools, simple speech instructions; 7. monitor the student's achievements. |  |  | | --- | | **Inclusive culture and pedagogical consulting 14 academic credits** |  |  | | --- | | During the module, pre-service teachers analyze their own professional actions in terms of inclusion values. They also provide advisory assistance to families with children with special educational needs and other teachers working in conditions of inclusion. Pre-service teachers organize pedagogical cooperation in a complex situation with various attitudes (child -teacher - parent). They also show ethical values accepted in the community. |  |  |  | | --- | --- | | Course title | **Accessibility in education and support in inclusion** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Inclusive culture and pedagogical consulting 14 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for providing advisory assistance and cultural understanding (7,8,9)   Pre-service teachers analyze the values of inclusion, the principles of pedagogical ethics, and acceptance of the diversity of communities, and consider the diversity of students. Pre-service teachers develop a holistic view of the aspects of accessibility in education: psychological accessibility, social accessibility, physical accessibility, pedagogical accessibility, and digital accessibility. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * broadcast the values of inclusion; * act in accordance with inclusion values and ethical principles; * embrace the diversity of communities; * popularize ideas and knowledge in the field of education of persons with special educational needs * evaluate obstacles to learning; * design the learning environment and processes from the point of view of accessibility; * simulate various forms of interaction; * adapt training materials; * create algorithms/instructions for presenting educational material; * apply a variable form of presentation of the material; * use universal, multimodal, auxiliary means; * use assistive technologies. |  |  |  | | --- | --- | | Course title | **Family-centered support for people with disabilities** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Inclusive culture and pedagogical consulting 14 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for providing advisory assistance and cultural understanding (7,8,9)   Pre-service teachers construct the necessary knowledge in the field of didactics, teaching technology, and methods of motivation in learning and development. They provide pedagogical assistance, individualize the learning process considering the diversity of students, and use various technologies based on pedagogical and independent research. Pre-service teachers provide a process of productive interaction with the legal representatives of a child with disabilities. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * apply the models of family inclusion in developing work; * design teaching to include parents in the developmental process; * organize pedagogical cooperation in the complex situation with various attitudes (teachers-child - parent); * contribute to the formation of positive parent-child attitudes. |  |  |  | | --- | --- | | Course title | **Interdisciplinary interaction** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Inclusive culture and pedagogical consulting 14 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for providing advisory assistance and cultural understanding (7,8)   Pre-service teachers construct the necessary knowledge about the content of the team assessment of a child with disabilities and the activities of student counseling service (SCS). They understand the need for interaction with a team of specialists, the parents, and the pedagogical community. They also design interdisciplinary activities to include a child with disabilities in the educational environment. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * plan interdisciplinary work in educational organizations; * act in interactive situations and groups; * implement the work plan of the psychological and pedagogical support service; * communicate in a variety of interactive attitudes. |  |  |  | | --- | --- | | Course title | **Organization of psychological and pedagogical support service** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Inclusive culture and pedagogical consulting 14 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for providing advisory assistance and cultural understanding (7,8)   Pre-service teachers develop a deep understanding of the organizational structure of the psychological and pedagogical support service. They understand the importance of teamwork and skills in team interaction. They also critically evaluate and analyze their understanding and professional activities, and develop them further. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * plan interdisciplinary work in educational organizations; * act in interactive situations and groups; * implement the work plan of the psychological and pedagogical support service. |  |  | | --- | | **Research and forecasting 9 academic credits** |  |  | | --- | | During the module, pre-service teachers build their understanding and practical research skills in the field of special education and related branches of knowledge. |  |  |  | | --- | --- | | Course title | **Inclusive practice** | | Component | Subject component, University component | | Cycle | Major disciplines | | Module | Research and forecasting 9 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for research and forecasting (10)   Pre-service teachers apply the principles of pedagogical ethics focusing on the values of inclusion. They consider the diversity of students, and ensure accessibility in education for different learners. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * design accessible learning environment and processes; * model various forms of interaction; * adapt training materials for different learners; * create instructions and apply variable forms of presentation of the material using universal, multimodal, auxiliary means; * master assistive technology. |  |  |  | | --- | --- | | Course title | **Design of scientific research** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Research and forecasting 9 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for research and forecasting (10)   Pre-service teachers distinguish the difference between daily and scientific thinking. They explore the stages and methods of research, and evaluate and present research results. | | Learning outcomes | **Pre-service teachers who demonstrate competence can:**   * apply the logic of research; * choose research methods; * plan and implement research; * describe, present, and argue the results of scientific research. |  |  |  | | --- | --- | | Course title | **Research as a forecast** | | Component | Subject component, Optional component | | Cycle | Major disciplines | | Module | Research and forecasting 9 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 teachers´ work environment (7) * Competence area for professional development (8, 9, 10) * Competence area for research and forecasting (10)   Pre-service teachers distinguish the difference between daily and scientific thinking. They explore the stages and methods of research, and evaluate and present research results. | | Competence outcomes | **Pre-service teachers who demonstrate competence can:**   1. apply the logic of research; 2. choose research methods; 3. plan and implement research; 4. describe, present, and argue the results of scientific 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 – 16 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** | | | | | | | | | | Fundamentals of neuropathology 5 academic credits |  |  | 5 |  |  |  |  |  | | Special psychology 5 academic credits |  | 5 |  |  |  |  |  |  | | Workshop on differential diagnosis 5 academic credits |  |  | 5 |  |  |  |  |  | | Comprehensive assessment of children with disorders of behavior and emotional-volitional sphere 5 academic credits |  |  | 5 |  |  |  |  |  | | Anatomy, physiology and pathology of the organs of hearing, vision, speech 5 academic credits |  | 5 |  |  |  |  |  |  | | Anatomy and physiology of the central nervous system and higher nervous activity 5 academic credits |  |  |  |  |  |  |  | | Psychological and pedagogical diagnostics of children with disabilities 5 academic credits |  |  | 5 |  |  |  |  |  | | Comprehensive assessment of special educational needs 5 academic credits |  |  |  |  |  |  |  | | Special pedagogy 5 academic credits |  |  |  | 5 |  |  |  |  | | Speech therapy 5 academic credits |  |  |  | 5 |  |  |  |  | | Neuropsychological approaches in special education 5 academic credits |  |  |  |  | 5 |  |  |  | | Design and technology of work with children with autism spectrum disorder 5 academic credits |  |  |  |  |  | 5 |  |  | | Oligophrenopedagogy 5 academic credits |  |  |  | 5 |  |  |  |  | | Neurological fundamentals of speech therapy 5 academic credits |  |  |  |  |  |  |  | | Surdopedagogy 5 academic credits |  |  |  |  |  |  |  | | Typhlopedagogy 5 academic credits |  |  |  |  |  |  |  | | Universal Learning Design 4 academic credits |  |  |  |  | 4 |  |  |  | | Support in the children education with disabilities 4 academic credits |  |  |  |  |  |  |  | | Correction of cognitive activity 5 academic credits |  |  |  |  | 5 |  |  |  | | Speech therapy work with preschool children 5 academic credits |  |  |  |  |  |  |  | | Sign dactyl speech 5 academic credits |  |  |  |  |  |  |  | | Teaching literacy to the blind in Braille 5 academic credits |  |  |  |  |  |  |  | | Workshop on social and household orientation 5 academic credits |  |  |  |  |  | 5 |  |  | | Workshop on correction of oral and written speech 5 academic credits |  |  |  |  |  |  |  | | Workshop on the development of auditory perception and pronunciation formation 5 academic credits |  |  |  |  |  |  |  | | Workshop on the development of visual perception and spatial orientation of children with visual impairments 5 academic credits |  |  |  |  |  |  |  | | Design and technology of work with children with multiple disabilities 5 academic credits |  |  |  |  |  | 5 |  |  | | Speech therapy for systemic speech disorders 5 academic credits |  |  |  |  |  |  |  | | Design and technology of operation in cochlear implantation 5 academic credits |  |  |  |  |  |  |  | | Typhlotechnical means and technologies for teaching children with visual impairments 5 academic credits |  |  |  |  |  |  |  | | Special methods of language teaching 5 academic credits |  |  |  |  | 5 |  |  |  | | Special methods of teaching mathematics 5 academic credits |  |  |  |  | 5 |  |  |  | | Designing individual programs for children with intellectual disabilities 4 academic credits |  |  |  |  | 4 |  |  |  | | Designing speech therapy work with general speech underdevelopment 4 academic credits |  |  |  |  |  |  |  | | Designing individual programs for children with hearing impairment 4 academic credits |  |  |  |  |  |  |  | | Designing individual programs for visually impaired children 4 academic credits |  |  |  |  |  |  |  | | Special teaching methodology of the cycle of subjects "Technology and Art" 5 academic credits |  |  |  |  | 5 |  |  |  | | Speech therapy work in case of violations of the sound-pronouncing and tempo-rhythmic side of speech 5 academic credits |  |  |  |  |  |  |  | | Subject-practical training 5 academic credits |  |  |  |  |  |  |  | | Methods of teaching the subject "Knowledge of the world" 5 academic credits |  |  |  |  |  |  |  | | Accessibility in education and support in inclusion 5 academic credits |  |  |  |  |  |  | 5 |  | | Family-centered support for people with disabilities 4 academic credits |  |  |  |  |  |  | 4 |  | | Interdisciplinary interaction 5 academic credits |  |  |  |  |  |  | 5 |  | | Organization of psychological and pedagogical support service 5 academic credits |  |  |  |  |  |  |  | | Design of scientific research 5 academic credits |  |  |  |  |  |  | 5 |  | | Research as a forecast 5 academic credits |  |  |  |  |  |  |  | | Inclusive practice 4 academic credits |  |  |  |  |  |  |  | 4 | | **FINAL ATTESTATION - 8 academic credits** | | | | | | | | | | Final attestation |  |  |  |  |  |  |  | 8 | | **Academic credits in total** | **32** | **28** | **32** | **28** | **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.