

**Non-Profit Joint-Stock Company «L.N. Gumilyov Eurasian National University»**

**Department Computer Science**

(department name)

Approved by  
Dean of Faculty of Information  
technologies  
АҚПАРАТТЫҚ  
ТЕХНОЛОГИЯЛАР  
ФАКУЛЬТЕТІ  
Sh. Zh. Seilov  
(signature)  
13.01. 20\_22\_ y.

## **Syllabus**

**COMS 72007 Module pedagogical research methodology**

(module code and name)

**on the discipline**

**BSPZAN 7302 Methodological bases of pedagogical research in the field of  
education**


(discipline code and name)

**for students of education program**

**«8D01511 - Computer Science»**

(education program code and name)

**Nur-Sultan  
2021**

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Syllabus on the discipline **BSPZAN 7302 Methodological bases of pedagogical research in the field of education**

(discipline code and name)

designed on the base of education program **«8D01511 - Computer Science»**

(education program code and name)

**Designer /  
Designers**



Karymsakova A.E., candidate of pedagogical sciences  
(signature) (Name, scientific degree)

Considered at the department meeting of the Department of Computer Science

Record № 4 «10» December 2021

Head of department



Serik M., doctor of pedagogical sciences  
(Name, scientific degree)

Approved at the meeting of the Educational and Methodological Commission of the Faculty

Record № 5 «10» January 2022

Chairman of the EMC of the Faculty  
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Sagnayeva S.K., candidate of physical and

(signature)

(Name, scientific degree)

**\*Agreed:**

**Head of department**



(signature)

Serik M., doctor of pedagogical sciences  
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*\* The content of the Syllabus is coordinated with the graduate department.*

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## EXPLANATORY NOTE

### 1. Description

Aim	Learning objectives *	Learning outcomes
The purpose of the course Methodological foundations of pedagogical research in the field of education is to form a system of ranks and ideas about the methodology of pedagogy as a special branch of scientific knowledge as a special branch of scientific knowledge, in the course of mastering the course to reveal the patterns of the historical development of pedagogical science, modern ideas about the methodology of pedagogy, develop skills of independent research activities in the field of vocational education, classification of digital educational resources by type of information, pedagogical aspects formation of educational resources	The ability to organize scientific research by combining theoretical pedagogical justification and experimental research, develop practical diagnostic tools and use mathematical statistical methods to determine the effectiveness of education.	Know the methods of scientific and pedagogical research and theoretical, mathematical and statistical methods or pedagogical research; organizing experimental research and analyzing their findings; using empirical, theoretical, mathematical and statistical methods to apply theoretical pedagogical interpretation and theoretical research.

*\*according to education program "8D01511 - Computer Science" 2021*

### 2. Prerequisites

Knowledge, skills and abilities acquired during the study of the following disciplines are necessary to master this discipline: Informatization of education and learning problems  
(course name)

### Postrequisites

The knowledge, skills and abilities acquired during the study of the discipline are necessary for the learning of the following disciplines: Doctoral research work  
(course name)


### 3. Extract from the curriculum

Year 1

Semester 2

Number of ECTS 5

Types of classes	Total number of hours
Lectures	30

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Practical classes	15
Seminars	
Laboratory practicals	
Independent work of a student (IWS)	105
<b>Total</b>	<b>150</b>

#### 4. Thematic plan of the discipline by modules (150 hours)

Module №	Name of the module
1	Methodology of scientific knowledge and pedagogical research
2	Methodology of organization, presentation of results, design of work

Lectures				
Week №	Module №	Theme of the lecture	Number of hours	Types and methods of training
1	1	Methodology of pedagogical research: essence, functions, principles	2	Actualization of the problem; The method of action learning.
2-3	1	General characteristics of pedagogical research	4	Actualization of the problem; The method of action learning.
4	1	The logic of organizing pedagogical research	2	Actualization of the problem; The method of action learning.
5	1	The logical structure of pedagogical research	2	Actualization of the problem; The method of action learning.
6	1	Organization methodology, presentation of results, design of work	2	Actualization of the problem; The method of action learning.
7	1	Implementation of research results into pedagogical practice	2	Actualization of the problem; The method of action learning.
8	1	Theoretical and empirical research methods	2	Actualization of the problem; The method of action learning.
9	2	Methods of pedagogical research: Study of literary sources	2	Actualization of the problem; The method of action learning.
10	2	Pedagogical Research Methods: Observation Method	2	Actualization of the problem; The method of action learning.
11	2	Pedagogical Research Methods: Conversation Method	2	Actualization of the problem; The method of action learning.

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12	2	Pedagogical Research Methods: Survey Methods	2	Actualization of the problem; The method of action learning.
13	2	Pedagogical research methods: Pedagogical experiment	2	Actualization of the problem; The method of action learning.
14	2	Pedagogical research methods: Testing	2	Actualization of the problem; The method of action learning.
15	2	Methods of pedagogical research: Studying pedagogical experience	2	Actualization of the problem; The method of action learning.
<b>Total</b>			30	

**Practical classes (seminars)**

Week №	Module №	Theme of the practical lesson (seminar)	Number of hours	Types and methods of training
1	1	Methodology of pedagogical research: essence, functions, principles	1	Discussion/debates
2-3	1	General characteristics of pedagogical research	2	Discussion/debates
4	1	The logic of organizing pedagogical research	1	Discussion/debates
5	1	The logical structure of pedagogical research	1	Discussion/debates
6	1	Organization methodology, presentation of results, design of work	1	Discussion/debates
7	1	Implementation of research results into pedagogical practice	1	Discussion/debates
8	1	Theoretical and empirical research methods	1	Discussion/debates
9	2	Methods of pedagogical research: Study of literary sources	1	Discussion/debates
10	2	Pedagogical Research Methods: Observation Method	1	Discussion/debates
11	2	Pedagogical Research Methods: Conversation Method	1	Discussion/debates
12	2	Pedagogical Research Methods: Survey Methods	1	Discussion/debates
13	2	Pedagogical research methods: Pedagogical experiment	1	Discussion/debates
14	2	Pedagogical research methods: Testing	1	Discussion/debates
15	2	Methods of pedagogical research: Studying pedagogical experience	1	Discussion/debates
<b>TOTAL</b>			15	

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IWS				
Week №	Module №	Theme of IWS Deadlines	Number of hours	Types and methods of training
1-2	1	Methodology of pedagogical research: essence, functions, principles. Prepare presentations reflecting the philosophical and pedagogical views of W. James, J. Dewey, A. Maslow, K. Rogers. Deadline: 2 week	8	Presentation/information search
3	1	General characteristics of pedagogical research. Prepare the theses of the speech with the justification of the conditions necessary for the organization and conduct of pedagogical research. Deadline: 3 week	8	Theses/ information search
4	1	The logic of organizing pedagogical research. Prepare an abstract review on the problem "Modern scientific approaches to the organization of pedagogical research". Deadline: 4 week	10	Abstract review/ information search
5	1	The logical structure of pedagogical research. Conduct a comparative analysis of the concepts of "training", "education", "socialization". Make a selection of publications on the organizational foundations of vocational education in the journal "Vestnik" L.N. Gumilyov ENU (2015 - 2021). Deadline: 5 week	10	Benchmarking/Research
6	1	Organization methodology, presentation of results, design of work. Make an analytical report on the existing methods of studying personality traits. Deadline: 6 week	9	Report/ Research
7	1	Implementation of research results into pedagogical practice. Diagnose the personal and moral and ethical qualities of high school students (first-year students). Deadline: 7 week	8	Study/information search
8-9	1	Theoretical and empirical research methods. Develop a research plan to study the experience of organizing educational work at the department. Establish which	8	Planning/search

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		forms of education are most in demand by students. Deadline: 9 week		
10	2	Pedagogical Research Methods: Observation Method. Prepare a presentation on Observation Method. Deadline: 10 week	8	Presentation/information search
11-12	2	Pedagogical Research Methods: Conversation and Survey Methods. Prepare a presentation on Polling and Conversation Techniques. Deadline: 12 week	12	Presentation/information search
14	2	Pedagogical research methods: Pedagogical experiment and Testing. Prepare a presentation on Test Methods and Pedagogical Experiment. Deadline: 14 week	12	Presentation/information search
15	2	Methods of pedagogical research: Studying pedagogical experience. Take the test on the topic "Methods of pedagogical research". Deadline: 15 week.	12	Test Preparation /Training
<b>TOTAL</b>			105	

## 5. Brief organizational and methodological characteristics of the discipline

*Types of control of educational achievements:*

**Midterm examination 1** *oral survey.*

**Midterm examination 2** *oral survey.*

**Summative assessment:** *paperwork.*

*(The forms of current and midterm examination are determined by the teacher independently)*


*(The form of summative assessment is determined by the department)*

### Course Policies and Procedures:

- Mandatory attendance of all classes by the trainee according to the schedule;
- Preliminary preparation for classes;
- Timely execution and delivery of IWS;
- Preparation for all types of classes should be independent and creative;
- Active work and creativity during classes;
- Participation in all types of control;
- Commitment to the University's Academic Integrity Policy.

## 6. Educational and methodological coverage of the discipline

№	Author, name, publisher, year of publication	Information carrier	Available in stock (p)	
			In the library	At the department
1	2	3	4	5
Basic literature				

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1	Андрианова Е. И. Подготовка и проведение педагогического исследования: учебное пособие для вузов. Ульяновск: УлГПУ, 2013. 116 р. <a href="http://biblioclub.ru/index.php?page=book_view_red&amp;book_id=278048">http://biblioclub.ru/index.php?page=book_view_red&amp;book_id=278048</a>	Manual	-	1
2	Беляев, А. В., Гулакова М. В., Харченко Г. И. Методологические основания педагогического исследования: учебное пособие. Киров: Изд-во МЦИТО, 2017 – 190 р.	Manual	-	1
3	Юдина О. И. Методология педагогического исследования. Оренбургский гос. ун-т. – Оренбург: ОГУ, 2013 -141р. <a href="http://biblioclub.ru/index.php?page=book_red&amp;id=270324&amp;sr=1">http://biblioclub.ru/index.php?page=book_red&amp;id=270324&amp;sr=1</a>	Manual	-	1
Additional literature				
4	Новиков, В. К. Методология и методы научного исследования: курс лекций. – Москва : Альтаир - МГАВТ, 2015. – 211 р. <a href="https://biblioclub.ru/index.php?page=book_view_red&amp;book_id=430107">https://biblioclub.ru/index.php?page=book_view_red&amp;book_id=430107</a>	Textbook	-	1
5	Шипилина Л.А. Методология психолого-педагогических исследований. Учебное пособие для аспирантов и магистрантов по направлению «Педагогика». 3-е изд., стереотип.-М.: ФЛИНТА, 2011. – 204 р. <a href="http://biblioclub.ru/index.php?page=book_view_red&amp;book_id=93458">http://biblioclub.ru/index.php?page=book_view_red&amp;book_id=93458</a>	Manual	-	1
Electronic and Internet resources				
6	<a href="https://bstudy.net/622981/turizm/teoreticheskie_empiricheskie_metody_nauchnogo_issledovaniya">https://bstudy.net/622981/turizm/teoreticheskie_empiricheskie_metody_nauchnogo_issledovaniya</a>			
7	<a href="https://bstudy.net/1000279/pedagogika/metody_pedagogicheskogo_issledovaniya">https://bstudy.net/1000279/pedagogika/metody_pedagogicheskogo_issledovaniya</a>			

The list of basic literature includes basic textbooks and manuals (usually three or four titles) in the disciplines of the socio-humanitarian profile for the last 5 years, in other areas - for the last 10 years.

Additional literature should include no more than 10 titles.

When specifying electronic and Internet resources, it is necessary to specify the short name of the information to which the link is given, then place the active link. The number of links to Internet resources should not exceed 10 titles.

### 7. System of learning outcomes assessment of a student

*Students' knowledge, skills and abilities are evaluated according to the following system*

Grade by letter system	Digital equivalent of grade	Percentage content	Grade by traditional system	Grade criteria
<b>A</b>	4,0	95-100	Excellent	The A grade is given when a complete, detailed answer to the question is given, a set of conscious knowledge about the object is shown, manifested in the free operation of concepts, the ability to identify its essential and non-essential features, cause-






				and-effect relationships. Knowledge about the object is demonstrated against the background of understanding it in the system of this science and interdisciplinary connections. The answer is formulated in terms of science, presented in literary language, logical, evidence-based, demonstrates the author's position of students.
<b>A-</b>	3,67	90-94		The <b>A-</b> grade is made when a complete, detailed answer to the question is given, a set of conscious knowledge about the object is shown, the main provisions of the topic are evidently disclosed; a clear structure, logical sequence is traced in the answer, reflecting the essence of the disclosed concepts, theories, phenomena. Knowledge about the object is demonstrated against the background of understanding it in the system of this science and interdisciplinary connections. The answer is presented in literary language in terms of science. There may be shortcomings in the definition of concepts, corrected by the student himself in the process of answering.
<b>B+</b>	3,33	85-89	Good	The <b>B+</b> grade is given when the students give a complete, detailed answer to the question posed, the main provisions of the topic are evidently disclosed in the answer, a clear structure, logical sequence is traced, reflecting the essence of the concepts, theories, phenomena being disclosed. The answer is presented in literary language in terms of science. There are shortcomings in the answer, corrected by the student with the help of the teacher.
<b>B</b>	3,0	80-84		The <b>B</b> grade is given when a complete, detailed answer to the question is given, the ability to identify essential and non-essential signs, cause-and-effect relationships is shown. The answer is clearly structured, logical, presented in literary language in terms of science. There may be shortcomings or minor errors corrected by the student with the help of the teacher.
<b>B-</b>	2,67	75-79		The <b>B-</b> grade is made when a detailed answer to the question is given, the ability to identify essential and non-essential signs,



				cause-and-effect relationships is shown. The answer is clearly structured, logical, stated in terms of science. However, minor mistakes or shortcomings were made, corrected by the student with the help of guiding questions.
<b>C+</b>	2,33	70-74		The <b>C+</b> grade is given when a complete but insufficiently consistent answer to the question is given, but at the same time the ability to identify essential and non-essential signs and cause-and-effect relationships is shown. The answer is logical and stated in terms of science. There may be 1-2 mistakes in the definition of basic concepts that the student found it difficult to correct on their own.
<b>C</b>	2,0	65-69	Satisfactory	The <b>C</b> grade is given in the case when an insufficiently complete and insufficiently detailed answer is given. The logic and sequence of the presentation have violations. Mistakes were made in the disclosure of concepts, the use of terms. The student is not able to independently identify essential and non-essential signs and cause-and-effect relationships. The student can concretize generalized knowledge by proving their main points by examples only with the help of a teacher. Speech design requires corrections.
<b>C-</b>	1,67	60-64		The <b>C-</b> grade is given in the case when an incomplete answer is given, the logic and sequence of presentation have significant violations. Gross mistakes were made in determining the essence of the disclosed concepts, theories, phenomena, due to students' misunderstanding of their essential and non-essential features and connections. There are no conclusions in the response. The ability to reveal specific manifestations of generalized knowledge is not shown. Speech design requires corrections.
<b>D+</b>	1,33	55-59		The <b>D+</b> grade is given when an incomplete answer is given. There is an illogical presentation. The teacher finds it difficult to prove. There are a lot of significant errors in the definitions of terms, concepts, characteristics of facts, phenomena.

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				<p>There are no inputs in the response. Speech is illiterate. When answering additional questions, the student begins to realize the existence of a connection between knowledge only after the teacher prompts.</p>
<b>D</b>	1,0	50-54		<p>The <b>D</b> grade is given when an incomplete answer is given, which represents scattered knowledge on the topic of the question with significant errors in definitions. There is fragmentary, illogical presentation. The student is not aware of the connection of this concept, theory, phenomenon with other objects of the module (discipline). There are no conclusions, concretization and evidence-based presentation. The speech is illiterate. Additional and clarifying questions from the teacher do not lead to correction of the student's answer not only to the question posed, but also to other questions of the module (discipline).</p>
<b>FX</b>	0,5	25-49	Unsatisfactory	<p>The grade "unsatisfactory" corresponds to the letter <b>FX, F</b>, which has a digital equivalent of 0 and a percentage of 0-49. This assessment is made if the student has found gaps in the knowledge of the basic material provided by the program, has not mastered more than half of the module (discipline) program, has made fundamental mistakes in the answers, has not completed individual tasks provided for by the forms of current, intermediate and final control, has not worked through all the basic literature provided by the program.</p>
<b>F</b>	0	0-24		