

Ministry of science and higher education of the Republic of Kazakhstan
NJSC «Korkyt Ata Kyzylorda University»

GRADUATE MODEL
in the educational program
«7M01514-Computer science»

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INTRODUCTION

The model of competencies for the implementation of the main directions of the Bologna process is designed to answer the question of what professional tasks a specialist of a certain degree (position), a certain profile should solve. The formation of a modern graduate model that meets the needs of stakeholders and all stakeholders is the main strategic goal of KSU. Korçyt Ata is provided with personnel, educational and methodological, information and logistical resources necessary for the educational process. The University implements a targeted personnel policy and systematic improvement of the material and technical base of the university to ensure high-quality training of undergraduate graduates in demand in the labor market.

1. Description

The educational program 7M01514-Computer science is implemented in order to develop the potential of higher education, taking into account the educational needs and requests of students. The educational program includes the introduction of materials that ensure the quality of training of students and appropriate educational technologies in the field of personnel training.

The main idea of the educational program is the organization of the learning and development process, training and education of students, design and management of the pedagogical process, correction, design, diagnostics of the results of pedagogical activity.

2. The constituent components in the formation of the graduate model of the educational program

The key components of the formation of the graduate Model of the educational program include information about the goals and objectives of the educational program, objects, types and directions of professional activity, the competence model of a specialist (Appendix 1), including descriptors, a variety of competencies in accordance with the educational program, the results of the educational program.

2.1 Objectives of the Educational Program:

Training of highly qualified, competitive personnel with high spiritual and moral qualities, capable of thinking independently and making decisions, ensuring progressive scientific, technical, socio-economic and cultural development of society. Training of specialists for the system of postgraduate education and the research sector and for the realization of knowledge aimed at educating

students with deep scientific and pedagogical training.

2.2 Objectives of the Educational Program:

The tasks of the professional activity of the Bachelor of education in the educational program 7M01514-Computer science:

- education;
- educational;
- research;
- methodical;
- social and communicative.

2.3 General and professional competencies

- educational: implementation of educational work in accordance with the laws, patterns, principles, educational mechanisms of the pedagogical process; planning of extracurricular educational work; selection and application of various forms and methods of teaching and education of extracurricular work in computer science;
- socio-pedagogical: creating favorable conditions for the life, upbringing and development of students and providing pedagogical support;
- experimental research: the study of scientific and methodological literature; the study and generalization of advanced pedagogical experience in the field of computer science; conducting a pedagogical experiment, introducing its results into the educational process;
- organizational and managerial: planning the content of computer education at various levels; determining the methods of organizing and implementing the educational process.
- information and communication technologies: the ability to interact socially with society, the team, the ability to work in a team; language proficiency; the ability to conduct written and oral dialogue, business correspondence.

2.4 Matrix of correlation of learning outcomes of the educational program with the competencies being formed

Competencies	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8
GEC1	+							
GEC 2	+							
GEC 3	+							
GEC 4	+							
GEC 5		+						
GEC 6								+
PC1						+		
PC2					+			
PC3							+	
PC4		+						
PC5						+		

PC6			+					
PC7							-	
PC8					+			
PC9								
PC10					+			
PC11				+				
PC12			+					

LO 1	Masters the creation of electronic publications and resources in education, the specifics of their use in teaching, the basic principles of educational informatization tools and requirements for evaluation methods.
LO 2	Owens the methodology of using innovative tools in teaching computer science, knows digital educational resources for teaching computer science, information educational environments, the organization of e-learning in the field of education.
LO 3	Studies educational methods in the context of teaching computer science. Forms modern methods of teaching methods in the field of pedagogical informatics
LO 4	Owens the organization and conduct of pedagogical research, the methodology and technology of distance learning, teaching a school course of computer science in the conditions of distance learning.
LO 5	He knows the features of object-oriented programming in education, the creation of mobile applications, the basics of computer science, the basics of real-time systems.
LO 6	He is proficient in methods of using computer system structures, network and multimedia technologies in teaching, areas of application of cloud technologies in teaching computer science, programming network applications, using Google services in education.
LO 7	Uses the skills of organizing, using the methods of scientific and pedagogical research in professional activities in the field of education and science. Owens the methodology of preparation for the final certification.
LO 8	Knowledge is formed about the concept of the history of science and the structure of philosophy, the dynamics of science and its laws, the international model of education in a foreign language, higher school pedagogy, analysis of psychological features of communication in a social environment, patterns of human psyche development, problems of informatization of education, theory and methodology of teaching, learning patterns, methods of organizing and conducting pedagogical research, analysis, examination of results and research results.

2.5. Personal qualities of a social work specialist:

- purposefulness,
- responsibility,
- determination,
- initiative,
- communication skills,
- poise,
- decency,
- integrity,

- honesty,
- self-control,
- independence,
- stress resistance,
- energy,
- polite,
- patience,
- enthusiasm.

CONCLUSIONS

This graduate model is the methodological basis for the implementation of the technology of the competence approach. It is also important to understand that the formation of these competencies in a graduate is ensured through a certain way organized and implemented educational process. In market conditions, universities are beginning to pay more attention to the quality of graduates: after all, a graduate is exactly the result of university education that enters the labor market. And it has to be competitive. It is in order to prepare graduates in demand on the market that it is necessary to form a comprehensive portrait of him, a certain matrix of characteristics. From understanding the key advantages, characteristics, and competencies of graduates that employers need, it is possible to move on to creating an effective modern university: to form educational programs, create infrastructure, and use new learning formats.

The graduate's competence model

Module	DDB (Dublin Descriptors of bachelor)	Emerging competencies			Planned learning outcomes
		general education competencies	basic competencies	professional competencies	
1	2	3	4	5	6
M1	DDB1 DDB2 DDB3 DDB4 DDB5	GEC 1			LO 1 Masters the creation of electronic publications and resources in education, the specifics of their use in teaching, the basic principles of educational informatization tools and requirements for evaluation methods.
	DDB1 DDB2 DDB3 DDB4 DDB5	GEC 2			LO 1 Masters the creation of electronic publications and resources in education, the specifics of their use in teaching, the basic principles of educational informatization tools and requirements for evaluation methods.
	DDB1 DDB2 DDB3 DDB4 DDB5	GEC 3			LO 1 Masters the creation of electronic publications and resources in education, the specifics of their use in teaching, the basic principles of educational informatization tools and requirements for evaluation methods.
	DDB1 DDB2 DDB3 DDB4 DDB5	GEC 4			LO 1 Masters the creation of electronic publications and resources in education, the specifics of their use in teaching, the basic principles of educational informatization tools and requirements for evaluation methods.
	DDB1 DDB2 DDB3 DDB4 DDB5	GEC 5			LO 2 Owns the methodology of using innovative tools in teaching computer science, knows digital educational resources for teaching computer science, information educational environments, the organization of e-learning in the field of education.
	DDB1 DDB2 DDB3 DDB4 DDB5	GEC 6			LO 8 Knowledge is formed about the concept of the history of science and the structure of philosophy, the dynamics of science and its laws, the international model of education in a foreign language, higher school pedagogy, analysis of psychological features of communication in a social environment, patterns of

					human psyche development, problems of informatization of education, theory and methodology of teaching, learning patterns, methods of organizing and conducting pedagogical research, analysis, examination of results and research results.
M2	DDB1 DDB2 DDB3 DDB4 DDB5			PC 1	LO 6 He is proficient in methods of using computer system structures, network and multimedia technologies in teaching, areas of application of cloud technologies in teaching computer science, programming network applications, using Google services in education.
	DDB1 DDB2 DDB3 DDB4 DDB5			PC 2	LO 5 He knows the features of object-oriented programming in education, the creation of mobile applications, the basics of computer science, the basics of real-time systems.
	DDB1 DDB2 DDB3 DDB4 DDB5			PC 3	LO 7 Uses the skills of organizing, using the methods of scientific and pedagogical research in professional activities in the field of education and science. Owns the methodology of preparation for the final certification.
	DDB1 DDB2 DDB3 DDB4 DDB5			PC 4	LO 2 Owns the methodology of using innovative tools in teaching computer science, knows digital educational resources for teaching computer science, information educational environments, the organization of e-learning in the field of education.
	DDB1 DDB2 DDB3 DDB4 DDB5			PC 5	LO 6 He is proficient in methods of using computer system structures, network and multimedia technologies in teaching, areas of application of cloud technologies in teaching computer science, programming network applications, using Google services in education.
	DDB1 DDB2 DDB3 DDB4 DDB5			PC 6	LO 3 Studies educational methods in the context of teaching computer science. Forms modern methods of teaching methods in the field of pedagogical informatics
	DDB1 DDB2 DDB3 DDB4 DDB5			PC 7	LO 7 Uses the skills of organizing, using the methods of scientific and pedagogical research in professional activities in the field of education and science. Owns the methodology of preparation for the final certification.
	DDB1			PC 8	LO 5

	DDB2 DDB3 DDB4 DDB5				He knows the features of object-oriented programming in education, the creation of mobile applications, the basics of computer science, the basics of real-time systems.
	DDB1 DDB2 DDB3 DDB4 DDB5			PC 9	LO 3 Studies educational methods in the context of teaching computer science. Forms modern methods of teaching methods in the field of pedagogical informatics
	DDB1 DDB2 DDB3 DDB4 DDB5			PC 10	LO 5 He knows the features of object-oriented programming in education, the creation of mobile applications, the basics of computer science, the basics of real-time systems.
	DDB1 DDB2 DDB3 DDB4 DDB5			PC 11	LO 4 Owns the organization and conduct of pedagogical research, the methodology and technology of distance learning, teaching a school course of computer science in the conditions of distance learning.
	DDB1 DDB2 DDB3 DDB4 DDB5			PC 12	LO 3 Studies educational methods in the context of teaching computer science. Forms modern methods of teaching methods in the field of pedagogical informatics
M3	DDB1 DDB2 DDB3 DDB4 DDB5			PC 13	LO 8 Knowledge is formed about the concept of the history of science and the structure of philosophy, the dynamics of science and its laws, the international model of education in a foreign language, higher school pedagogy, analysis of psychological features of communication in a social environment, patterns of human psyche development, problems of informatization of education, theory and methodology of teaching, learning patterns, methods of organizing and conducting pedagogical research, analysis, examination of results and research results.

M1 - Methodology of fundamental knowledge

M2 - Science (by industry) and innovation

M3 - Final certification