

Ministry of Science and higher education of the Republic of Kazakhstan
NAO "Korkyt Ata Kyzylorda University"

«I approve»
Chairman of the
Academic Quality Committee
Institute of Engineering and technology
Abzhalelov B.B.
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GRADUATE MODEL

Educational program «Life safety and environmental protection»
Bachelor's degree

Kyzylorda city, 2023

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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 interested parties is the main strategic goal of the Korkyt Ata NGO and is provided with human, educational, methodological, informational 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 of the EP

Forms of professional activity of the Bachelor of services in the educational program 6B11279 – «Life safety and environmental protection» – enterprises of organizations, all sectors of the economy, life safety, environmental protection, protection in emergency situations, environmental services, design and research organizations, institutions of various forms of ownership.

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

2.1 The main components of forming a graduate model of an educational program include information about the goals and objectives, objects of the educational program, types and directions of professional activity, models of specialist competencies, including descriptors, type of competencies in accordance with the educational program and the results of the educational program.

2.1 Objectives of the educational program

The purpose of the educational program is to train highly qualified and competitive personnel in the field of life safety and environmental protection, adapted to solving issues of industrial and innovative development of branches of science, technology, production and economy of the Kyzylorda region and the Republic of Kazakhstan.

2.2 Objectives of the educational program:

- training of qualified personnel corresponding to the tasks of the innovative economy of the country;
- creating conditions for the development of science and innovation, attracting young people to the formation of new ideas;
- increasing the contribution to the development of national unity, national culture and a harmonious personality

2.3 general and special, profile competencies

GC 1 To enter into communication in oral and written forms in Kazakh, Russian and foreign languages

GC 2 Use various types of information and communication technologies in professional activities;

GC3 Ability to take responsibility, work out solutions together with others and participate in their implementation, tolerance to different ethnocultures and religions;

GC 4 Find compromises, correlate your opinion with the opinion of the team;

GC 5 Use the basics of knowledge and methodologies explaining the world to identify problems and conclusions based on evidence, apply their knowledge to solve professional problems;

GC 6 Build a personal educational trajectory throughout life for self-development and career growth;

GC 7 Focus on a healthy lifestyle to ensure full-fledged social and professional activities through methods and means of physical culture;

GC 8 Conduct scientific research, experiments with the writing and presentation of various types of works based on the principles of academic integrity.

AK1/CK1/SC1

He will be competent in interpreting the results of a physical experiment using the basic laws of physics in his activities and in the analysis of electrical and magnetic circuits.

AK2/CK2/SC2

Will apply the course to solving simple practical problems, find tools sufficient for their research, and obtain numerical results in some standard situations.

AK3/CK3/SC3

Possesses numerical methods for solving typical mathematical problems in the study of mathematical models of physical processes and solving applied problems, is able to identify the natural science essence of the problem.

AK4/CK4/SC4

Learn to build mathematical models; solve mathematical problems; be able to choose suitable mathematical methods and an algorithm for solving a problem; apply numerical methods using modern methods when searching for a

solution to a problem.

AK6/CK6/SC6

In the design and operation of machinery, technological processes and facilities, the economy in accordance with the requirements for Industrial Safety, makes decisions and evaluates situations to protect production personnel from possible consequences

AK7/CK7/SC7

Organizes rescue operations in emergency situations of various kinds; uses the knowledge, skills and abilities acquired during the organization of events; clearly formulates the basic concepts; has the skills to provide pre-medical care; knows the techniques of caring for the injured and sick; predicts possible complications of emergency situations and diseases, conducts primary, secondary and third prevention of diseases.

AK8/CK8/SC8

Is able to organize an effective system of safety management that reduces the impact on workers of dangerous and harmful production factors, to carry out control and supervision of labour protection, accounting, analysis and assessment of health and safety training of workers safety, ensuring workers' medical insurance services and individual means.

AK9/CK9/SC9

Able to make drawings in design and drawing works. Calculation of complex volumetric structures in the computer-aided design system

AK10/CK10/SC10

In each specific case, important harmful and dangerous production factors leading to a violation of the health of the employee can be identified; preventive measures can be proposed aimed at factors adversely affecting the health of the employee; they can correctly assess the danger to the health of the employee of the effects of each harmful and dangerous production factor, depending on the specific hygienic conditions at work

AK11/CK11/SC11

Competent in working with legislative and regulatory acts of the Republic of Kazakhstan in the field of life safety and environmental protection; understands the basic technological principles of industrial enterprises, ensures the safety of production processes and equipment; exercises control over the use of means of protecting nature and labor and rescue equipment, compliance with norms, rules and standards of labor protection

БК1/ПК1/PC1

It is able to use methods of protection of atmospheric air, water from production and consumption waste, to neutralize some types of waste by thermal methods, to own various methods of waste treatment.

БК2/ПК2/PC2

Performs work in a certain area to confirm the compliance of objects of technical regulation with the established requirements, is competent in technical issues of industrial safety./

БК3/ПК3/PC3

In the works of specialization in the direction of «life Safety and environmental protection» to determine compliance with ergonomic requirements in the organization of industrial workplaces, machines, controls.

БК4/ПК4/PC4

Capable of independent development of applied software tools based on modern information technologies, capable of intensive research work

БК5/ПК5/PC5

Competent in carrying out the examination of emergencies and accidents, as well as the certification of workplaces according to working conditions, including the assessment of working conditions and the level of injury safety

БК6/ПК6/PC6

Training in the assessment of working conditions at production facilities and compliance with the requirements to identify industrial hazards and hazards that can lead to workplace injuries or occupational injuries.

БК7/ПК7/PC7

Is able to determine the causes of fires, devices and apparatus, fire extinguishing means, fire protection of industrial and civil objects, to develop fire safety measures, to evaluate engineering solutions of fire and explosion safety of objects, to justify material losses of fire and explosion safety of objects.

БК8/ПК8/PC8

Competent in the organization of work on the selection of employees necessary for the company, as well as their professional training.

БК9/ПК9/PC9

Possess skills in the field of industrial safety competence in matters of integrated safety assessment.

2.4 Matrix of comparison of educational program learning outcomes with emerging competencies

	OH1/P O1/LO1	OH2/PO2/L O2	OH3/PO3/L O3	OH4/PO4/ LO4	OH5/PO5/ LO5	OH6/PO6/L O6	OH7/PO7/LO 7	OH8/PO8/L O8
ЖБК1/OK1/G1+								
ЖБК2/OK2/G2+								
ЖБК3/OK3/G3+								
ЖБК4/OK4/G4+								
ЖБК5/OK5/G5+								
ЖБК6/OK6/G6		+						
ЖБК7/OK7/G7+								
ЖБК8/OK8/G8			+					
АК1/CK1/SC1			+					
АК2/CK2/SC2			+					
АК3/CK3/SC3			+					
АК4/CK4/SC4			+					
АК5/CK5/SC5		+						
АК6/CK6/SC6				+				
АК7/CK7/SC7				+				
АК8/CK8/SC8				+				
АК9/CK9/SC9			+					
АК10/CK10/S C10					+			
АК11/CK11/S C11		+						
АК12/CK12/S C12					+			
АК13/CK13/S C13					+			
АК14/CK14/S C14						+		
АК15/CK 15/SC15 MINOR						+		
АК16/CK 16/SC16 MINOR						+		
АК17/CK17/S C17					+			
АК18/CK 18/SC18 MINOR				+				
АК19/CK19/S C19				+				
БК1/ПК1/PC1						+		
БК2/ПК2/PC2				+				
БК3/ПК3/PC3					+			
БК4/ПК4/PC4					+			
БК5/ПК5/PC5							+	
БК6/ПК6/PC6						+		
БК7/ПК7/PC7					+			
БК8/ПК8/PC8					+			
БК9/ПК9/PC9						+		

2.5. Personal qualities of a specialist in the educational program «Life Safety and environmental protection»


Specialists in the field of life safety and environmental protection are qualified specialists who can solve any tasks related to ensuring human safety when interacting with the technosphere and the environment. Their task is to ensure the safe and environmentally friendly functioning of the technosphere, the rational use of natural resources, the prediction and elimination of the causes of accidents and disasters.

- Expert on the analysis of factors of working conditions;
- Occupational Safety and health engineer;
- Occupational Health and safety engineer

The personal qualities of a graduate of the EP are tact and honesty, tolerance and openness, emotional intelligence, authority and communication, optimism and creative thinking, self-improvement and the desire for continuous learning and professional growth.

Professional qualities: organizational skills-competent organization of the labor process, allocation of time and resources to achieve maximum results; possess the qualities of establishing effective relationships with employees; be able to adapt to changes in the field of life safety and environmental protection; responsibility.

Head of the EP

 Sydykova G.K.