NCJS «KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY
named after K.I.SATBAYEV»

Institute of Architecture and Construction named after T.Basenov
Department of Engineering Systems and Nets

EDUCATIONAL PROGRAM
7M11201 Occupational health and safety at work

Code and classification of the field of education: **7M11 Services**
Code and classification of training directions: **7M112 Occupational health and safety at work**
Group of educational programs: **M150 Sanitary and preventive measures**
Level based on NQF: **7**
Level based on IQF: **7**
Study period: **2**
Amount of credits: **125**

Almaty 2022

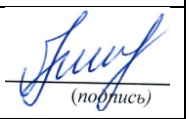
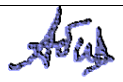
Educational program 7M11201 Occupational health and safety at work was approved at the meeting of K.I. Satbayev KazNRTU Academic Council

Minutes # 13 dated «28» April 2022.

was reviewed and recommended for approval at the meeting of K.I. Satbayev KazNRTU Educational and Methodological Council

Minutes # 7 dated «26» April 2022.

Educational program 7M11201 Occupational health and safety at work was developed by Academic committee based on direction «Labor safety»

Full name	**Academic degree/ academic title**	**Position**	**Workplace**	**Signature**
Chairperson of Academic Committee:				
Alimova K.K.	cand.tech.science	Head of chair, assoc.prof.	KazNRTU named K.I.Satbayev	
Teaching staff:				
Batesova F.K.	cand.tech.science	assoc.prof.	KazNRTU named K.I.Satbayev	
Shevtsova V.S.	cand.tech.science	assoc.prof.	KazNRTU named K.I.Satbayev	
Employers:				
Kuzhemuratov S.S.		Director	LLP “Standart Group LTD”	
Students				
Abiltaeva Zh.Z.		Understudent, 2 course	LPP “Gelios”	

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List of abbreviations and designations

NAO KazNRTU named after K.I.Satpayev - NAO "Kazakh National Research Technical University named after K.I.Satpayev";

SOSE - State obligatory standard of education of the Republic of Kazakhstan;

EP - educational program;

IWS - independent work of a student (student, undergraduate, doctoral student);

IWSP - independent work of a student with a teacher (independent work of a student (undergraduate, doctoral student) with a teacher);

WC - working curriculum;

QED - catalog of elective disciplines;

VK - university component;

KV - component of choice;

NQF - National Qualifications Framework;

SQF - Sectoral Qualifications Framework;

RO - learning outcomes.

1. Description of educational program

The educational program of the master's program in the direction of preparation 7M11201 - "Hygiene and labor protection at work" was developed by the Kazakh National Research Technical University named after K.I. Satbayev and provides an opportunity to obtain in-depth knowledge, key skills and abilities of the graduate and his further development in the field of labor protection and industrial safety, protection in emergencies. This EP is built taking into account the possibility of providing a master student with a choice of an appropriate educational trajectory or a specific specialization, based on the main educational program, but containing its own individual competencies, reflecting the specifics of a particular specialization in the direction 7M112 "Hygiene and labor protection in production".

2. Purpose and objectives of educational program

Purpose of EP: The purpose of the educational program 7M11201 - "Occupational Health and Safety at Work" is to train highly qualified masters of technical sciences with fundamental scientific knowledge in the field of occupational health and safety, industrial safety, emergency protection, capable of implementing the acquired knowledge in design, engineering, production and technological, research, organizational and managerial and scientific and pedagogical activities.

Tasks of EP: - selection and calculation of the main parameters of human and environmental protection means in relation to specific conditions based on known methods and systems;

- calculation and design work to create means of ensuring safety, saving and protecting a person from technogenic and anthropogenic impacts;
- development of sections of projects related to security issues;
- engineering and design and author's support of scientific research in the field

of safety and technical implementation of innovative developments;

- optimization of production technologies in order to reduce the impact of negative factors on humans and the environment;
- conducting an economic assessment of the developed protection systems or proposed technical solutions;
- preparation of terms of reference for the development of design solutions in the field of hygiene and labor protection, protection in emergency situations;
- carrying out calculations for projects, a feasibility study of planned solutions;
- development of methodological and regulatory documents, technical documentation;
- examination of projects and the state of facilities for labor safety and protection in emergency situations;
- selection of life safety systems, fire, chemical, biological and other production safety;
- designing processes for ensuring hygiene and labor protection, protection in emergency situations;
- formation of the principles of labor protection culture in the organization, development of a system for collecting, analyzing information and exchanging information. Collection of information about human, technical, organizational and environmental factors that determine the safety of the system as a whole;
- development of a planned system of internal standards, operating procedures, instructions and rules.
- carrying out measurements and surveys in the field of safety, planning experiments, processing, analysis and generalization of their results, mathematical and computer modeling, making forecasts;
- compiling descriptions of ongoing research, formulating goals and objectives, preparing data and compiling reports, reviews and scientific publications aimed at improving safety, creating new methods and systems for protecting humans and the environment, determining the plan, the main stages of research;
- choice of research method, development of a new research method;
- creation of a mathematical model of the object, the research process;
- participation in the development and implementation of methods and programs in the field of hygiene and labor protection, protection in emergency situations;
- planning, implementation of the experiment, processing of the obtained data, formulation of conclusions based on the results obtained, development of recommendations for the practical application of the results of scientific research;
- analysis and generalization of research results, publication of results in the form of scientific articles and abstracts of reports, registration of pre-patents and patents for inventions;
- development of innovative projects in the field of security, their implementation and implementation.
- setting goals and formulating tasks for the protection of the environment at the level of the enterprise, territorial production complexes and regions, as well as the activities of enterprises and regions in emergency conditions;

- development of operational plans for primary production units;
- maintenance of technical documentation related to professional activities;
- development of organizational and technical measures in the field of security and their implementation, organization and implementation of modern man-made and occupational risk management systems at enterprises and organizations;
- participation as a technical expert in the commercial implementation and purchase of protection systems, new design and engineering developments related to the direction of the profile, taking into account knowledge of the market situation and marketing work in the sales market;
- development of norms and rules in the field of hygiene and labor protection, as well as the establishment of the procedure for their implementation in the course of economic and other activities;
- calculation of the technical and economic efficiency of measures aimed at improving the safety of production and the cost of eliminating the consequences of accidents and disasters for making informed economic decisions.
- teaching disciplines related to labor protection and industrial safety, life safety in colleges and universities;
- management of departments of labor protection and industrial safety, retraining of average technical personnel of services and enterprises;
- development of educational and methodical literature for conducting classes with students.

3. Requirements for evaluating the educational program learning outcomes

Awarded degree/qualifications: A graduate of this educational program is awarded the academic degree "master" in the direction 7M11201 "Hygiene and labor protection at work".

A graduate who has mastered the master's program should have the following general professional competencies:

- the ability to independently acquire, comprehend, structure and use new knowledge and skills in professional activities, develop their innovative abilities;
- the ability to independently formulate research goals, establish a sequence for solving professional problems;
- the ability to put into practice the knowledge of fundamental and applied sections of the disciplines that determine the direction (profile) of the master's program;
- the ability to professionally choose and creatively use modern scientific and technical equipment to solve scientific and practical problems;
- the ability to critically analyze, present, defend, discuss and disseminate the results of their professional activities;
- possession of skills in the preparation and execution of scientific and technical documentation, scientific reports, reviews, reports and articles;
- willingness to lead a team in the field of their professional activity, tolerantly perceiving social, ethnic, confessional and cultural differences;
- readiness for communication in oral and written forms in a foreign language

to solve the problems of professional activity.

A graduate who has mastered the master's program must have professional competencies corresponding to the types of professional activities that the master's program is focused on.

Design activity:

- the ability to perform complex engineering and technical developments in the field of safety;
- the ability to predict, determine areas of increased technogenic risk and areas of increased pollution;
- the ability to optimize the methods and means of ensuring human security from the impact of various negative factors in the technosphere;
- the ability to conduct an economic assessment of the effectiveness of the implemented engineering and technical measures.

Production and technological activities:

- the ability to independently carry out production and research and production work in solving practical problems;
- the ability to professionally operate modern equipment and instruments in the field of the mastered master's program;
- the ability to use modern methods of processing and interpreting complex information to solve production problems;
- the ability to independently draw up and submit projects for research and development work;
- readiness to design complex research and scientific and production works in solving professional problems;
- the ability to independently conduct audits and inspections;
- the ability to assess production risks and draw up plans for corrective actions, to have the skills of HAZOP, HAZID methods;
- the ability to conduct incident investigations according to the "five whys" and "tree of reasons" methods.

Research activities:

- the ability to solve professional problems by integrating fundamental and technical sciences and specialized knowledge in the field of hygiene and labor protection, industrial safety, protection in emergency situations, obtained during the development of the master's program;
- the ability to independently conduct scientific research in the professional field, summarize and analyze experimental information, draw conclusions, formulate conclusions and recommendations;
- the ability to create and explore models of the objects under study based on the use of in-depth theoretical and practical knowledge in the field of life safety;
- the ability to analyze, optimize and apply modern information technologies in solving scientific problems;

Organizational and managerial activities:

- readiness to use the practical skills of organizing and managing research and development work in solving professional problems of protecting the environment at the level of the enterprise, territorial production complexes and regions, as well as

the activities of the enterprise in an emergency mode;

- readiness for the practical use of regulatory documents in the planning and organization of scientific and production work on safety issues;
- the ability to interact with government services in the field of industrial, fire safety, protection in emergency situations;
- the ability to rationally address issues of safe placement and use of technical means in the regions;
- the ability to apply in practice the theory of managerial decision-making and methods of expert assessments.

Scientific and pedagogical activity:

- the ability to conduct seminars, laboratory and practical classes;
- the ability to participate in the development of interactive teaching methods, educational and methodological documentation, multimedia materials and methods for monitoring learning;
- the ability to participate in the management of the scientific and educational work of students in the field of life safety.

When developing a master's program, all general cultural and general professional competencies, as well as professional competencies related to those types of professional activities that the master's program is focused on, are included in the set of required results for mastering the master's program.

4. Passport of educational program

4.1. General information

№	Field name	Comments
1	Code and classification of the field of education	7M11 Services
2	Code and classification of training directions	7M112 Occupational health and safety
3	Educational program group	M150 Sanitary and preventive measures
4	Educational program name	7M11201 Occupational health and safety at work
5	Short description of educational program	The educational program 7M11201 provides an opportunity to obtain in-depth scientific knowledge, research skills and abilities and its further development in the field of labor protection and industrial safety, protection in emergencies
6	Purpose of EP	The purpose of the educational program 7M11201 - "Occupational Health and Safety at Work" is to train highly qualified masters of technical sciences with fundamental scientific knowledge in the field of occupational health and safety, industrial safety,

		emergency protection, capable of implementing the acquired knowledge in design, engineering, production and technological, research, organizational and managerial and scientific and pedagogical activities.
7	Type of EP	New EP
8	The level based on NQF	7
9	The level based on IQF	7
10	Distinctive features of EP	-
11	List of competencies of educational program	- the ability to perform complex engineering and technical developments in the field of life safety; - the ability to predict, determine areas of increased technogenic risk and areas of increased pollution of the working environment; - the ability to optimize the methods and means of ensuring human security from the impact of various negative factors in the technosphere; - the ability to conduct an economic assessment of the effectiveness of the implemented engineering and technical measures; - the ability to implement in practice in labor conditions and in emergency situations various measures to protect a person; the ability to carry out technical and economic calculations of measures to improve safety; - the ability to implement new methods for improving the reliability and stability of technical objects, maintaining their functional purpose; - basic skills for assessing production risks and developing corrective measures, investigating incidents and preventing their recurrence, conducting safety audits and inspections.
12	Learning outcomes of educational program	A graduate upon completion of EP 6B112 - Occupational Health

		and Safety at Work can carry out professional activities at industrial enterprises of all industries of various forms of ownership, in institutions and organizations with a staff of more than 50 people in the safety and labor protection services, industrial safety, departments of the Ministry of Emergency Situations Republic of Kazakhstan, subdivisions of the Ministry of Labor and Social Protection of the Population of the Republic of Kazakhstan.
13	Education form	full-time
14	Period of training	2
15	Amount of credits	125
16	Languages of instruction	Russian, Kazakh, English
17	Academic degree awarded	magistr
18	Developer(s) and authors	

4.2. Relationship between the achievability of the formed learning outcomes based on educational program and academic disciplines

№	Discipline name	Short description of discipline	Amount of credits	Generated learning outcomes (codes)										
				PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
Cycle of general education disciplines University component														
1	English (professional)	The course is designed for undergraduates of technical specialties to improve and develop foreign language communication skills in professional and academic fields. The course introduces students to the general principles of professional and academic intercultural oral and written communication using modern pedagogical technologies (round table, debates, discussions, analysis of professionally oriented cases, design). The course ends with a final exam. Undergraduates also need to study independently (MIS).	5	v										v
2	History and philosophy of science	The subject of the philosophy of science, the dynamics of science, the specifics of science, science and prescience, antiquity and the formation of theoretical science, the main stages of the historical development of science, the features of classical science, non-classical and post-non-classical science, the philosophy of mathematics, physics, engineering and technology, the specificity of engineering sciences, the ethics of science , social and moral responsibility of a scientist and engineer.	3	v										v
3	Pedagogy of higher education	The discipline is a continuation of Mathematics 1. The sections of the course include elements of linear algebra and	3	v										v

		analytic geometry. The main questions of linear algebra are considered: linear and self-adjoint operators, quadratic forms, linear programming. Differential calculus of a function of several variables and its applications. Multiple integrals. The theory of determinants and matrices, linear systems of equations, as well as elements of vector algebra. Includes elements of analytical geometry in the plane and in space.													
4	Psychology of management	The course is aimed at teaching undergraduates the basics of management psychology. It will consider the specifics of management psychology, psychological patterns of management activities, personality and its potential in the management system; motivation and performance in the organization, leadership and leadership in modern management of organizations, a social group as an object of management, the psychological basis for making managerial decisions, business communication and managerial conflicts, the psychology of responsibility, creating an image as an integral part of the culture of communication, the psychology of advertising.	3	**v**			**v**							
Cycle of basic disciplines Optional component															
5	State policy in the field of BC	Knowledge of the state policy in the field of life safety, carried out in the field of protecting the population and territories from natural and man-made emergencies on the basis of a unified state system of civil protection.	5				**v**					**v**		
6	State policy in the field of industrial and	Knowledge of state policy, state management and state supervision, carried out by	5				**v**					**v**		

	environmental safety	authorized bodies in the field of industrial and environmental safety for sustainable socio-economic development..													
7	Methodology for conducting scientific research in the Belarusian Railways	Formation of knowledge, skills and abilities that allow the practical use of modern methods of scientific research in the field of life safety and the necessary competencies for the successful implementation of research, design, organizational and management activities in the same area..	5		**v**			**v**							
8	Methodological foundations of life safety training	Formation of knowledge and skills among undergraduates for successful pedagogical activity on life safety as a science based on the methodology of teaching the discipline, with the provision of theoretical knowledge and practical skills necessary for methodological work to cover the issues of creating safe and harmless living conditions.	5	**v**				**v**							
9	Professional programs in the Belarusian Railways	Knowledge of professional computer programs for their qualified application in practice, provision of modern management of production processes that prevent industrial injuries, occupational diseases, accidents, fires.	5	**v**				**v**							
10	Modern scientific research in the field of technosphere and environmental safety	The study of topical problems in the field of scientific and innovative activities, acquaintance with the achievements of world and domestic science and the practice of managing innovative processes in the field of technosphere and environmental safety. Formation of a holistic view of the mechanisms for managing scientific and innovative processes; bases for self-study and mastery of the mechanisms for managing scientific and innovative processes.	5			**v**							**v**		

Cycle of major disciplines University component														
11	Security issues in projects	Formation of generalizing theoretical knowledge and practical experience in organizational safety management in projects. The use of a single concept, methods, techniques and tools as the most important security mechanisms in projects aimed at coordinating the efforts of all project participants.	5							v	v			
12	Scientific and methodological foundations of industrial safety	Basic principles, goals and objectives of scientific and technical policy and research activities in the study of industrial safety. Scientific analysis of human security problems and methods of their solutions at the individual, professional, national and global levels in fundamentally new post-industrial conditions.	5			v						v		
13	Carrying out a special assessment of safety and comfort of working conditions	Formation of knowledge in the field of conducting a special assessment of the safety and comfort of working conditions in accordance with the standards for hygienic assessment of existing conditions and the nature of work, assessing the safety of workplaces, assessing the provision of workers with personal protective equipment; ability to use legal documents that determine the procedure for conducting work on a special assessment of the safety of production facilities.	5							v	v			
14	Examination of technosphere and environmental safety	The discipline contributes to the formation of legal and regulatory principles of technosphere and environmental expertise, reveals modern problems of ecology and nature management; risk classification; main approaches to risk management in modern	5			v	v							

		economic conditions; ecological state of the environment; quantitative risk assessment; methods of analysis and evaluation of technological schemes of enterprises for the formation of a waste-free scheme												
Цикл профилирующих дисциплин Компонент по выбору														
15	Integrated Security Management Systems	Theoretical and practical foundations of integrated health and safety management systems to eliminate or minimize risks for workers and other interested parties whose health may be exposed to hazards associated with their activities.	5					v		v				
16	International Law and Security Cooperation	Providing deep fundamental knowledge about the activities of international organizations in the field of international legal regulation of labor, the study of modern trends in legal regulation in international labor law, taking into account the laws of historical development, the formation of skills for applying the acquired knowledge in professional activities	5				v		v					
17	Modeling in the technosphere safety forecasting system	Studying the methodology of system thinking and comprehensive consideration of complex problems, acquiring knowledge and skills in multi-aspect modeling, acquiring knowledge in the field of modeling real processes and phenomena that underlie the safety of technical systems, acquiring the skills to use the acquired knowledge in practical work.	5		v					v				
18	Organization and conduct of work on liquidation and assessment of the consequences of emergencies	The purpose of the study: to prepare undergraduates to solve organizational and managerial tasks to ensure industrial safety, increase the sustainability of industry facilities and life support of the population in emergency situations, for which it is	5				v			v				

		necessary to study the sustainability of economic objects and the principles of the formation of technosphere regions; dangerous technologies and productions; study of the stability of the functioning of the object of the economy and assessment of the possible situation in the organization in case of natural disasters, accidents, catastrophes; organization of protection of production personnel and material and technical means at chemical, radiation, explosion and fire hazardous enterprises and ways to minimize the risk of emergencies.												
19	Conducting research and assessment of the technogenic impact of industrial enterprises on the environment	Formation of knowledge necessary to reduce the negative impact of the technosphere on the natural environment through the rational and integrated use of raw materials and energy resources or when creating new environmental protection devices and technologies, environmentally friendly production processes, when combining and cooperating industries, as well as when developing an environmental strategy and development policy production.	5		**v**					**v**				
20	Certified State Course on Occupational Safety and Health	Training of certified specialists who have the right to work as a manager or a person responsible for ensuring safety and labor protection in organizations of any form of ownership in the territory of the Republic of Kazakhstan.	5					**v**					**v**	
21	Occupational Health and Safety Management System OHSAS 18001	Formation of ideas about the identification of hazards and the control of risks to the health and safety of personnel and other persons located on the territory and / or working on behalf of the organization; reducing the likelihood of accidents, accidents and other	5					**v**					**v**	

		incidents; compliance with legal and regulatory requirements and improving the overall efficiency of the work of the staff.												
22	Modern research in the field of BJD	The study of modern patterns of emergence and development of threats and dangers and ways to effectively protect society (a person, his communities, humanity) and his environment from them in any conditions of life.	5				v		v					
23	Technique and technology of protection in the technosphere	Formation of knowledge about the general methods for designing systems for protecting the environment from radiation, electromagnetic, noise, chemical pollution, air exchange and lighting systems, identifying potential hazards in production, performing risk assessments and developing appropriate corrective measures in the field of using protective equipment and technologies.	5				v			v				
24	Sustainable functioning of economic facilities in emergency situations	Acquisition of practical skills necessary to systematize scientific research to solve organizational and managerial tasks to ensure industrial safety, increase the stability of industry facilities and life support for the population in emergency situations, taking into account modern requirements; identification of hazards, their sources, levels and causes of occurrence, typical for the most energy-intensive industries and processes; development of the main directions of preventive measures to improve the stability of potentially hazardous industries in emergency situations.	5							v		v		

5. Curriculum of educational program

MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN
KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY named after K.I.SATPAYEV

SATBAYEV UNIVERSITY

APPROVED
ement Board-
r K.Satpayev
M. Begentaev
____ 2022 y.

APPROVED
Institute Director
B.U. Kuspangaliev
____ 2022 y.

CURRICULUM
of Educational Program on enrollment for 2022-2023 academic year

Educational program 7M11201- "Occupational health and safety»
Group of educational programs M150 – «Sanitary preventive measures»

Form of study: full-time | **Duration of study: 2 year** | **Academic degree:master of technical sciences**

Discipline code	Name of disciplines	Cycle	Total amount in credits	Total hours	Classroom amount lec/lab/pr	SIS (including TSIS) in hours	Form of control	Allocation of face-to-face training based on courses and semesters			
								I course		2 course	
								1 semester	2 semester	3 semester	4 semester
M-1. Module of basic training (university component)											
LNG210	English (professional)	BD UC	5	150	0/0/3	105	E	5			
HUM214	Management Psychology	BD UC	3	90	1/0/1	60	E		3		
HUM212	History and philosophy of science	BD UC	3	90	1/0/1	60	E		3		
HUM213	Higher school pedagogy	BD UC	3	90	1/0/1	60	E	3			
M-2. Scientific and methodological training module (component of choice)											
1201	Electives	BD CCH	5	150	1/0/2	105	E	5			
1202	Electives	BD CCH	5	150	1/0/2	105	E	5			
2201	Electives	BD CCH	5	150	1/0/2	105	E			5	
M-3. Occupational health and industrial safety module (university component, component of choice)											
SAF215	Conducting a special assessment of the safety and comfort of working conditions	PD UC	5	150	1/0/2	105	E	5			
SAF206	Scientific and methodological bases of industrial safety	PD UC	5	150	1/0/2	105	E	5			
SAF223	Security issues in projects	PD UC	5	150	1/0/2	105	E		5		
SAF237	Technosphere and environmental safety expertise	PD UC	5	150	1/0/2	105	E			5	
2301	Electives	PD, CCH	5	150	1/0/2	105	E			5	
1301	Electives	PD, CCH	5	150	1/0/2	105	E		5		
1302	Electives	PD, CCH	5	150	1/0/2	105	E		5		
2302	Electives	PD, CCH	5	150	1/0/2	105	E			5	
2303	Electives	PD, CCH	5	150	1/0/2	105	E			5	
M-4. Practice-oriented module											
AAP229	Pedagogical practice	BD UC	6						6		
AAP256	Research practice	PD, CCH	4								4
M-5. Experimental research module											
AAP251	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	2					2			
AAP241	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	3						3		
AAP254	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	5							5	
AAP255	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	14								14
M-6. Module of final attestation											
ECA205	Preparation and defense of a master's thesis	FA	12								12
	Total based on UNIVERSITY:							30	30	30	30
								60		**60**	

Number of credits for the entire period of study

Cycle code	Cycles of disciplines	Credits			
		Required components (RC)	university component (UC)	component of choice (CCH)	Total
BD	Cycle of basic disciplines		20	15	35
PD	Cycle of profile disciplines		25	24	49
	Total for theoretical training:	***0***	***45***	***39***	***84***
	RWMS				***24***
FA	Final attestation	12			12
	TOTAL:	**12**	**45**	**39**	**120**

Decision of the Academic Council of Kaznu named after K.Satpayev, Protocol № 13 от "28" 04 2022 y.
Decision of the Educational and Methodological Council of Kaznu named after K.Satpayev, Protocol № 7 от "26" 04 2022 y.
Decision of the Academic Council of the Institute_____, Protocol № 5 от "28" 04 2022.

Vice-Rector for Academic Affairs — Zhautikov B.A.
Institute Director — Kuspangaliev B.U.
Department Head — Alimova K.K.
Specialty Council representative from — Kuzhemuratov S.Sh.

MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN
SATBAYEV UNIVERSITY

SATBAYEV UNIVERSITY

APPROVED
Institute Director
B.U. Kuspangaliev
2022 y.

galiev
y.

CATALOG OF DISCIPLINES ON SELECTED MASTER'S SCHOOL for enrollment 2022-2023 academic year

Educational program 7M11201 – «Occupational health and safety»
Group of Educational programs M150 – «Sanitary and preventive measures»

Academic degree: master of technical sciences
Study duration: 2 years

Course	Code of elective	Code	Name of discipline	Credits	Cycle	amount in c	Total hours	Classroom amount lec/lab/pr	SIS (including TSIS) in hours
M-2.Scientific and methodological training module									
1	1201	SAF219	Methods of conducting scientific research in life safety	1	BD CCH	5	150	1/0/2	105
		SAF228	Methodological foundations of life safety training						
1	1202	SAF233	Modern scientific research in the field of technosphere and environmental safety	1	BD CCH	5	150	1/0/2	105
		SAF220	Professional programs in life safety						
2	2201	SAF201	State policy in the field of life safety	3	BD CCH	5	150	1/0/2	105
		SAF224	State policy in the field of industrial and environmental safety						
			Total	**5**					
M-3.Occupational health and industrial safety module									
1	1301	SAF227	International law and security cooperation	2	PD, CCH	5	150	1/0/2	105
		SAF229	Modeling in the technosphere safety forecasting system						
1	1302	SAF209	Modern research in the field of life safety	2	PD, CCH	5	150	1/0/2	105
		SAF218	Technology and technology of protection in the technosphere						
2	2301	SAF213	Conducting research and assessment of the technogenic impact of industrial enterprises on the environment	3	PD, CCH	5	150	1/0/2	105
		SAF235	Sustainable functioning of economic facilities in emergency situations						
2	2302	SAF231	Occupational Safety and Health Management System OHSAS 18001	3	PD, CCH	5	150	1/0/2	105
		SAF211	Organization and performance of liquidation and assessment of emergencies consequences						
2	2303	SAF216	Certified State Course on Occupational Safety and Health	3	PD, CCH	5	150	1/0/2	105
		SAF225	Integrated security management systems						
			Total	**25**					

Number of credits for the entire period of study	**Credits**
M-2.Scientific and methodological training module	15
M-3.Occupational health and industrial safety module	25
Total :	**40**

Decision of the Academic Council of Kaznu named after K.Satpayev. Protocol № _13_ от "_28_" __04___2022___ y.
Decision of the Educational and Methodological Council of Kaznu named after K.Satpayev. Protocol № _7_ от "_26__" __04___2022___ y.
Decision of the Academic Council of the Institute_____. Protocol № 5 от "28" 04 2022 y.

Vice-Rector for Academic Affairs — Zhautikov B.A.
Institute Director — Kuspangaliev B.U.
Department Head — Alimova K.K.
Specialty Council representative from — Kuzhemuratov S.Sh.