

**ALT University named after Mukhametzhan Tynyshpayev Joint Stock
Company**



APPROVED
by the decision of the US "ALT University
named after M. Tynyshpayev" from
2025 y. (Protocol № 83)
President-Rector
Zharmagambetova M.S.

EDUCATIONAL PROGRAM

Name: 7M11206 LIFE SAFETY AND ENVIRONMENTAL PROTECTION

Level of training: profile 1 year

Training area code and classification: 7M112 – Occupational hygiene and safety

**Code and group of educational programs: B094 Sanitary and preventive measures
M150 – Sanitary and preventive measures**

Date of registration in the Registry: 22.08.2025

Registration number: 7M11200048

Almaty, 2025 y.

CONTENT

1. Information about the review, approval and approval of the program, developers, experts and reviewers	3
2. Regulatory references	5
3. Passport of the educational program	6
4. The graduate's competence model	7
5. The matrix of correlation of learning outcomes in the educational program with academic disciplines/modules	15
6. The structure of the Bachelor's degree program	18
7. A working curriculum for the entire duration of study	19
8. Catalog of university component disciplines	21
9. The catalog of disciplines of the component of choice	27
10. Expert opinions	37
11. Reviewer's conclusion	42
12. Letters of recommendation	43
13. Review and approval protocols	
14. Approval sheet	
15. Change Registration Sheet	

1. INFORMATION ABOUT THE REVIEW, APPROVAL AND APPROVAL OF THE PROGRAM, DEVELOPERS, EXPERTS AND REVIEWERS

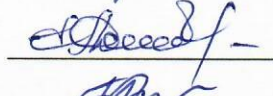
1 DEVELOPED:

Associate Professor, PhD



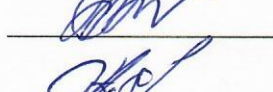
Abdreshov S.A.

Associate Professor, Ph.D.



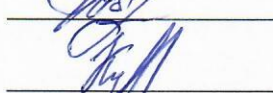
Dyusembin E.A.

Assistant Professor, Ph.D.



Bimagambetova L.N.

Senior Lecturer



Torgaev A.A.

Senior Lecturer



Kurmashev B.B.

Chairman of the Board of Directors
Almaty Fan Factory LLP



Bakkulov M.S.

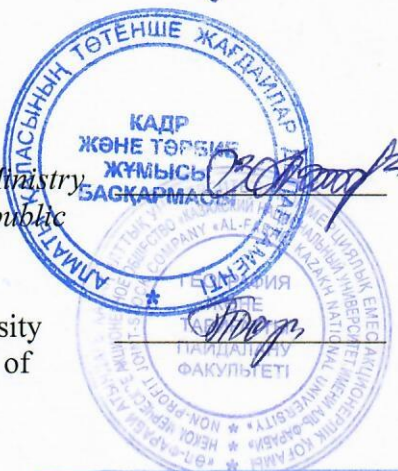
2nd year Master's student, gr.MN-BZHD
and ZOS-24-1p



Lepesova N.B.

2 EXPERTS:

Chief Specialist of the Department
Personnel and educational work
Emergency situations in Almaty, Ministry
of Emergency Situations of the Republic
of Kazakhstan



Akilbekova Z.E.

Al-Farabi Kazakh National University
Head of the UNESCO Department of
Sustainable Development, PhD,
Associate Professor



Bazarbayeva T.A.

3 REVIEWER:

Head of the Department of Agricultural
Machinery and Mechanical Engineering,
Ph.D., Associate Professor, NAO
KazNAIU



Zhumagulov J.B.

4 REVIEWED AND RECOMMENDED:

Meeting of the AK Department of Motor
vehicles and BZhD Protocol №1, «16» 10
2025 y


(signature)

Toylybaev A.E.

EMB ITandC meeting Protocol №7, «
28» 02 2025 y


(signature)

Abdreshov S.A.

EMS meeting Protocol No. 4, «20» 03
2025


(signature)

Kojabergenova A.K.

5 APPROVED by the decision of the Academic Council of «27» 03 2025 №8

2. REGULATORY REFERENCES

1. The educational program has been developed on the basis of the following regulatory legal acts and professional standards:

2. The Law of the Republic of Kazakhstan "On Education" dated July 27, 2007 No. 319-III (with amendments and additions as of March 27, 2023).

3. The National Qualifications Framework, approved by the protocol of March 16, 2016 of the Republican Tripartite Commission on Social Partnership and Regulation of Social and Labor Relations.

4. The sectoral qualifications Framework for Education, approved by the Minutes of the meeting of the Sectoral Commission of the Ministry of Education and Science of the Republic of Kazakhstan on social Partnership and Regulation of social and labor relations in the field of education and science dated November 27, 2019 No. 3.

5. The State mandatory standard of Higher and Postgraduate Education (Order No. 66 of the Minister of Science and Higher Education of the Republic of Kazakhstan dated February 20, 2023).

6. Qualification directory of positions of managers, specialists and other employees, approved by the Order of the Minister of Labor and Social Protection of the Population of the Republic of Kazakhstan dated August 12, 2022 No. 309.

7. Rules for the organization of the educational process on credit technology of education in organizations of higher and (or) postgraduate education, approved by the Order of the Minister of the Ministry of Education and Science of the Republic of Kazakhstan No. 152 dated 04/20/2011. (with additions and amendments dated April 04, 2023 No. 145).

8. Classifier of training areas with higher and postgraduate education, approved by Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 13, 2018 No. 569 (with amendments and additions as of June 05, 2020).

9. The algorithm for including and excluding educational programs in the Register of Educational Programs of Higher and Postgraduate Education, approved by Order of the Minister of Education and Science of the Republic of Kazakhstan dated December 4, 2018 No. 665 (with additions and amendments as of December 23, 2020 No. 536).

9. RI-ALT-33 "Regulation on the procedure for developing an educational program for higher and postgraduate education".

10. Professional standard: "Labor Protection", National Chamber of Entrepreneurs of the Republic of Kazakhstan "Atameken", approved by Order No.255 dated December 18, 2019.

3. PASSPORT OF THE EDUCATIONAL PROGRAM

№	Field name	Note
1	Registration number	7M11200048
2	Code and classification of the field of education	7M11 Services
3	The code and classification of training areas	Occupational hygiene and safety
4	The code and the group of educational programs	M150 – Sanitary and preventive measures
5	Name of the educational program	7M11206 – Life safety and environmental protection (1 year profile)
6	Type of OP	New
7	Purpose of the OP	The development of undergraduates' personal qualities, as well as the formation of professional competencies in accordance with modern requirements in this area of undergraduates' training for their successful professional activities, who are able to apply the skills of logical analysis of solutions to tasks, and possess communication skills in the industrial field.
8	ISCED level	7
9	NRC Level	7
10	ORC Level	7
11	Distinctive features of the OP	No
	Partner University (SOP)	-
	Partner University (DDOP)	-
12	The form of education	Full-time
13	Language of instruction	Kazakh, Russian
14	Volume of credits	60
15	Academic degree awarded	Master's degree in the educational program "7M11206 – Life safety and environmental protection"
16	Availability of an attachment to the training license	
17	Availability of OP accreditation	
	Name of the accreditation body	
	Validity period of accreditation	

4. THE GRADUATE'S COMPETENCE MODEL

The purpose of the educational program is to develop undergraduates' personal qualities, as well as the formation of professional competencies in accordance with modern requirements in this area of undergraduates' training for their successful professional activities, who are able to apply logical analysis skills to solve tasks, and possess communication skills in the industrial field.

Objectives of the educational program:

1. Assistance in the formation of a graduate's ability:

1) demonstrate the developing knowledge and understanding gained at the higher education level, which are the basis or opportunity for the original development or application of ideas, often in the context of scientific research;

2) apply knowledge, understanding, and the ability to solve problems in new or unfamiliar situations in contexts and within broader (or interdisciplinary) fields related to the field being studied;

3) integrate knowledge, cope with difficulties and make judgments based on incomplete or limited information, taking into account the ethical and social responsibility for the application of these judgments and knowledge;

4) clearly and clearly communicate their conclusions and knowledge and their justification to specialists and non-specialists;

5) continue to study independently.

2. Assistance in the formation of graduate readiness:

1) training of highly qualified specialists in the field of design, development, implementation, maintenance and operation of information systems of various profiles, including mathematical, information, software, linguistic, technical and organizational and legal support of information systems;

2) training of specialists with a high level of professional culture, including the culture of professional communication, having a civic position;

3) acquisition of skills in organizing and conducting scientific research, obtaining the necessary foundation for continuing scientific work in doctoral studies.

4) teaching a cycle of basic disciplines (BD), the purpose of which is to provide in-depth knowledge of a scientific, general technical and economic nature, as the foundation of scientific and professional education;

5) teaching a cycle of core disciplines (CD), the purpose of which is

6) providing deep theoretical knowledge and practical experience in the field of computer technology and software.

7) mastering the humanitarian, cultural, ethical and legal norms governing human-to-human relations, society, the environment, the culture of thinking and the ability to organize their work on a scientific basis;

8) providing deep theoretical knowledge and practical skills in the field of information systems;

9) providing in-depth knowledge of a natural science, general technical and economic nature as the foundation of professional education;

10) ensuring the adaptation of professionally oriented skills to the changing needs of society and the achievements of scientific thought;

11) ensuring recognition of the level of training of specialists in other countries.

Learning outcomes:

LO1 - evaluate and solve problems that arise at the level of modern proactive thinking, taking into account the conditions occurring in production, to use the team management skills and to understand the importance of science in society.

LO2 – Demonstrate logical thinking and oratorical skills while speaking fluently in the state and foreign languages.

LO3 – To use the advanced methodology of theoretical and experimental research, object modeling, taking into account the development of computer technology in solving current engineering problems in professional activities and scientific research

LO4 – To use the acquired knowledge and skills of conducting analytical, bibliographic and search work for further improvement and use in research based on modern technologies.

LO5 – To develop rational management approaches based on the analysis of advanced technologies and acquired knowledge in the field of life safety, occupational safety and ecology.

LO6 – Demonstrate leadership skills in managing a team to achieve their goals in the field of ecology, life safety and occupational safety.

LO7 – To use the knowledge of modern advanced programs for the management of natural resources, the effective use of income from the raw materials sector and scientific and technological development in production.

LO8 – To use modern methods of occupational safety and health education, applying innovative production technologies to ensure safety.

Field of professional activity: the field of professional activity of graduates are public and private enterprises and organizations that develop, implement and use information systems in various fields, namely telecommunications, science and education, healthcare, agriculture, transportation, services, administrative management, economics, business, management of various technologies, that is it exists in almost all spheres of human activity.

Types of professional activity:

- production and technological;
- organizational and managerial;
- experimental research;
- settlement and design;
- scientific research;
- pedagogical;
- service and operational.

Functions of professional activity:

1) participation in the development of drafts of technical specifications and requirements, standards and technical descriptions, and regulatory documentation for new professional activities;

2) forming the goals of the project (program), solving tasks, criteria and indicators for achieving goals, building a structure of their interrelationships, identifying priorities for solving tasks, taking into account the moral aspects of activity;

3) making competent decisions in complex and non-standard emergency situations of a natural and man-made nature;

4) the ability to eliminate the consequences of emergency situations in the shortest possible time;

5) decision-making on the introduction of modern technologies to ensure the safety of life and environmental protection;

6) knowledge of the latest devices and protective equipment in emergency situations;

7) the ability to formulate and solve problems that arise in the course of professional, research and teaching activities and require in-depth knowledge in the field of life safety and environmental protection;

8) the ability to collect, process, analyze and systematize scientific and technical information for emergency situations;

9) possession of a system of practical knowledge and skills in the field of pedagogy, psychology, management, ensuring the acquisition, development, improvement and activation of pedagogical and psychophysical abilities and qualities;

10) the application of knowledge of modern computer technologies in the processing of information obtained during the research.

List of specialist positions: Graduates of this specialty can hold positions in research institutions, design and engineering organizations without having to submit work experience requirements in

accordance with qualification requirements.

- Occupational safety engineer
- Occupational safety specialist at the workplace
- Labor Protection Inspector
- Fire Safety Inspector
- fighter of the emergency squad
- specialist in the organizations of the Ministry of Emergency Situations
- expert on projects and conditions of facilities for life safety and environmental protection- lecturer in higher education institutions
- specialist in scientific research and design and survey bureaus and institutes.

Professional certificates obtained upon graduation:

No

Requirements for the previous level of education: higher education (bachelor's degree).

The educational program of the specialized master's degree includes two types of practice:

- production practice – in the organization;
- experimental research practice – at the place of completion of the dissertation.

The master's degree program in the relevant field should include an industrial internship.

The master's degree program is conducted in order to consolidate the theoretical knowledge gained in the learning process, acquire practical skills, competencies and professional experience in the field of study, as well as master best practices. The content of the research/production practice is determined by the topic of the dissertation research.

As part of the research (experimental research) work of the undergraduate (hereinafter referred to as the SRWM (ERWM)) The individual master's work plan for familiarization with innovative technologies and new types of production provides for mandatory scientific internship in scientific organizations and (or) organizations of relevant industries or fields of activity. Research and development (ERWM) is planned in parallel with other types of educational work or in a separate period

The results of scientific research or experimental research work at the end of each period of their completion are drawn up by the graduate student in the form of a report.

Requirements for the experimental research work of a master's student:

experimental research work in a specialized master's degree program must:

- 1) correspond to the main problems of the specialty in which the master's thesis (master's project) is being defended; 2) be based on modern achievements of science, technology and production and contain specific practical recommendations, independent solutions to management tasks;
- 3) be performed using advanced information technologies;
- 4) contain experimental research (methodological, practical) sections on the main protected provisions.

The planning of the ERWM in weeks is determined based on the standard working hours of the graduate student during the week. The number of credits allocated for the implementation of the ERWM in a specific academic period is determined by the working curriculum of the professional educational program.

The ERWM should:

- 1) correspond to the profile of the master's degree program in which the master's project is being implemented and defended;
- 2) be based on modern achievements of science, technology and production and contains specific practical recommendations, independent solutions to management tasks;
- 3) be performed using advanced information technologies;
- 4) contain experimental research (methodological, practical) sections on the main protected provisions. Within the framework of the ERWM, an individual master's work plan for familiarizing students with innovative technologies and new types of production provides for mandatory scientific internships in

scientific organizations and (or) organizations of relevant industries or fields of activity. ERWM is planned in parallel with other types of educational work or in a separate period. The results of the experimental research work at the end of each period of its completion are drawn up by the graduate student in the form of a report. The final outcome of the ERWM is a master's project.

The aim of the ERWM is to obtain new results that are important for theory and practice in this subject area, as well as to master theoretical and experimental methods for studying objects (processes, effects, phenomena, structures, projects) in this subject area.

The objectives of the ERWM are:

- organization of undergraduate studies in theory and practice of conducting experimental research;
- development of creative thinking and independence of the graduate student, deepening and consolidation of the acquired theoretical and practical knowledge;
- identification of the most gifted and talented undergraduates, using their creative and intellectual potential to solve urgent problems of science and technology;
- formation of the undergraduate student's interest in scientific creativity, teaching them the methodology and methods of independent solution of applied problems.

The scientific internship is conducted in order to:

- completing the tasks of the master's thesis;
- familiarization with innovative technologies and new types of production;
- familiarization with the latest theoretical, methodological and technological achievements of Russian and foreign science;
- familiarization with modern methods of scientific research, processing and interpretation of experimental data;
- consolidation of theoretical knowledge gained in the learning process, acquisition of practical skills, competencies and professional experience in the specialty being studied, as well as the development of advanced foreign experience

ERWM requirements:

- 1) corresponds to the profile of the master's degree program in which the master's project is being implemented and defended;
- 2) it is based on modern achievements of science, technology and production and contains specific practical recommendations, independent solutions to management tasks;
- 3) performed using advanced information technology;
- 4) contains experimental and research (methodological, practical) sections on the main protected provisions.

The final certification of a master's student is carried out in the form of writing and defending a master's thesis.

The purpose of the final certification of a master's student is to assess the scientific, theoretical and research-analytical level of the master's student, the developed professional and managerial competencies, readiness to independently perform professional tasks and the compliance of his training with the requirements of the master's degree program.

Students who have completed the educational process in accordance with the requirements of the educational program, work curriculum and work curricula, as well as who have completed a preliminary defense (extended session) based on the results of their dissertation research, are allowed to take final certification.

5. THE MATRIX OF CORRELATION OF LEARNING OUTCOMES IN THE EDUCATIONAL PROGRAM WITH ACADEMIC DISCIPLINES/MODULES.

No.	Name of the discipline	Number of credits	The matrix of correlation of learning outcomes in the educational program with academic disciplines							
			LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8