

JSC "ALT University named after Mukhamedzhan Tynyshpayev"

Department of "Motor Vehicles and Life Safety"




APPROVING Chairman of the US
ALT University *[Signature]*
M. Zharmagambetova **Decision**
of the Academic
Council of ALT University dated "30.05"
2025 (Protocol no 6)

The interview program for applicants to the Master's degree program

Educational program 7M112055 Life safety and environmental protection, core area

Almaty, 2025

The program of the entrance exam (interview) was discussed and received a positive decision at the meeting of the Department of ATS and Belarusian Railways, Protocol No. 9 dated May 2, 2025.

Acting Head of the Department "Motor Vehicles and Life Safety"  Toylybaev A.E.

The program of the entrance exam (interview) was reviewed and recommended at the meeting of the Council of the Institute of Transport and Construction, Protocol No. 10 dated June 3, 2025.

Chairman of SI "Transport and Construction"  Abdreshov S.A.

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1. The purpose of the interview

Admission to the master's degree program 7M11201 Life safety and environmental protection, JSC "ALT University named after Mukhamedzhan Tynyshpayev" on a paid basis is based on the results of an interview. Persons who have at least 5 years of experience in a managerial position in the field of an educational program in the state or civil service, or at least 10 years of professional experience in the field of an educational program, are allowed to participate in the interview. The interview is conducted in order to assess the level of theoretical and practical training, professional competencies and motivation of the applicant to study for a master's degree.

2. The procedure for conducting the interview

An interview for applicants to the Master's degree program is conducted within 30 minutes. During this period, the applicant answers the questions of the admissions committee, approved by the President-Rector of the University. At the choice of the applicant, the interview can be conducted in Kazakh, Russian or English. The interview is conducted in person or remotely with the mandatory use of video communication. The video is stored in the university archive for up to three years. Candidates may be asked additional questions related to both the content of the interview and other sections related to the program profile.

Applicants who fail to attend the interview for a valid reason (illness or other documented circumstances) are allowed to be interviewed on another day according to the approved schedule. The interview protocols are sent to the executive secretary of the admissions committee immediately after the procedure is completed. All controversial issues related to the interview are considered in accordance with the legislation of the Republic of Kazakhstan.

3. Interview evaluation criteria

The interview is conducted on the basis of an approved protocol of the established sample, which records the questions asked and the answers of the applicant, as well as the final assessment.

Candidates are evaluated according to the University's internal system based on a number of criteria reflecting the applicant's level of training, professional experience and motivation. The final decision of the commission is made collectively and is formalized in the form of a protocol signed by all members of the commission. The passing score is not set in numerical terms — the decision of the commission determines whether the candidate meets the requirements for master's degree. The interview protocols of the enrolled applicants are stored in their personal files.

Table 1 - Interview evaluation criteria

| Criteria | Descriptors | Scores |
|----------------------------|---|---------------------------|
| Motivation | The reasonableness of the reasons for admission to the program, the choice of university, the understanding of the goals and prospects of professional and personal growth. | sufficient/not sufficient |
| Research competence | Possession of basic research skills necessary for scientific and analytical activities in the field of the educational program. | sufficient/not sufficient |
| Creativity | The ability to propose non-standard solutions, demonstrate a creative approach to the analysis of tasks and problems. | sufficient/not sufficient |
| Communicativeness | The ability to express their thoughts clearly and logically, to argue their point of view, to draw conclusions. | sufficient/not sufficient |
| The Commission's decision | | sufficient/not sufficient |

4. Interview questions

1. Chromatographic approaches: ion exchange, precipitation, adsorption and thin-layer chromatography.
2. Gas chromatography.
3. Process hardware.
4. Chromatographic columns. Detectors.
5. Chromatograms and their parameters.
6. Qualitative and quantitative analysis.
7. The specifics of water as an object of analysis.
8. The main pollutants of water and their classification.
9. The main characteristics of water. (ph, coarse additives-dry, dry precipitate, foaming agent, alkalinity, acidity).
10. Fire indicators of water quality (color, odor, heavy metals, organic carbon, total nitrogen and sulfur, Oxy, OXY, chlorostach). (1. Accidental errors. System errors.
11. Classification of fire extinguishers and fire extinguishers.
12. Automatic stationary fire extinguishing systems.
13. Purpose of fire communication and alarm system. Fire alarm systems and devices.
14. General fire extinguishing rules and the sequence of actions in case of fire.
15. Basic requirements for first aid.
16. First aid measures for burns and frostbite of body parts, eye burns, combustion products, electric shock. Poisoning.
17. Organizational structure of the Fire Protection Service in the Republic of Kazakhstan and in railway transport.

18. Fire safety.
19. Organizational measures to ensure fire safety.
20. Occupational health and safety during fire extinguishing.

5. Recommended literature

5. 1. Basic literature

1. The Law of the Republic of Kazakhstan dated April 11, 2014 No. 188-V SAM "On Civil protection".
2. Labor Code of the Republic of Kazakhstan dated 04/06/16 № 483-V.
3. Tselikov V.V., Torgaev A.A. Electrical safety, Almaty 2009, 148c. - 143.
4. Tselikov V.V., Aitkazin M.A., Matyushevskaya E.S., Torgaev A.A. Fire safety, Almaty 2008, 202c. -188.
5. Zaltsman M.D., Tsygankov S.G. Labor protection in transport construction. Almaty 2013, 392 p.
6. Klochkova E.A. Labor protection in railway transport, Moscow, Route, 2004, 412 p.
7. Environmental Code of the Republic of Kazakhstan.
8. Bazanova I.A. Fundamentals of life safety, Almaty, 2013., 377s.

5. 2. Additional literature

1. Arustamov E. A. Life safety, Moscow, 2004.
2. Instructions on the organization and conduct of civil defense in the Republic of Kazakhstan. Almaty, 2003
3. Prikhodko N.G. Life safety. Course of lectures - Higher School of Economics, 2000.
4. Zaltsman M.D. Labor protection. Laboratory practice. (Training manual). KazATK, Almaty, 2006, 136 p.
5. Pavlova E.I., Buralev Yu.V. Ecology of transport. M. "Transport" 1998, 232 p.
6. Omarov A.D., Tselikov V., Zaltsman M.D., Kaspakbaev K.S., Kazhigagulov A.K., Tsygankov S.G. Environmental safety in transport, Almaty 1999, 352 p.
7. Maslov N.N., Korobov Yu.I. Environmental protection in railway transport. Moscow: Transport, 1996, 238c.
8. Omarov A.D., Tselikov V.V. Kaspakbaev K.S., Matushevskaya E.S. Engineering solutions for occupational safety in transport, Almaty 2002, 449c.
9. Bazanova I.A. Fundamentals of Radiation Safety, Almaty, 2008, 145c.