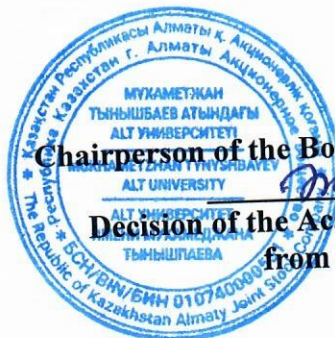


JSC «ALT University named after Mukhamedzhan Tynyshpaev»



APPROVED

Chairperson of the Board of Trustees of «ALT University»

M.S. Zharmagambetova

Decision of the Academic Council of «ALT University»

from «30» 05 2025 year (protocol №10)

Interview Program for Applicants to the Specialized Master's Program


Educational Program

" 7M07169- Transport Infrastructure Engineering"

Almaty. 2025


The program of the entrance exam was discussed and received a positive decision at the meeting of the Department of Transport Construction, Protocol No. 10 of 13 June 13, 2025.

**Head of the Department
"Transport construction "**

 **G. B. Karibayeva**

The program of the entrance exam was reviewed and recommended at the meeting of the Council of the Institute of Transport and Construction, Protocol No.6 of 23 June 23, 2025.

**Chairman of the Institute of
Transport and Construction**

 **Sh. A. Abdreshov**

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1. Purpose of the Interview

Admission to the master's program " 7M07169- Transport Infrastructure Engineering" at JSC "ALT University named after Mukhamedzhan Tynyshpaev" on a tuition basis is conducted based on the results of an interview. Candidates eligible to participate in the interview must have at least 5 years of experience in a managerial position related to the educational program in government or civil service, or at least 10 years of professional experience relevant to the educational program.

The interview is conducted to assess the applicant's level of theoretical and practical knowledge, professional competencies, and motivation for pursuing studies in the master's program.

2. Interview Procedure.

The interview for applicants to the master's program is conducted within 30 minutes. During this time, the applicant answers questions from the admissions committee approved by the President-Rector of the university.

At the applicant's choice, the interview may be conducted in Kazakh, Russian, or English. The interview is held either in-person or remotely, with mandatory use of video communication. The video recording is archived by the university for up to three years.

Candidates may be asked additional questions related both to the content of the interview and to other sections relevant to the program profile.

Applicants who do not attend the interview for valid reasons (illness or other documented circumstances) are allowed to take the interview on another day according to the approved schedule.

Interview protocols are submitted to the responsible secretary of the admissions committee immediately after the procedure is completed. All disputed issues related to the interview process are resolved in accordance with the legislation of the Republic of Kazakhstan.

3. Interview Evaluation Criteria

The interview is conducted based on an approved standardized protocol, which records the questions asked, the applicant's answers, and the final evaluation.

Candidates are assessed according to the University's internal system based on several criteria reflecting the applicant's level of preparation, professional experience, and motivation. The final decision of the committee is made collectively and documented in a protocol signed by all committee members.

No numerical passing score is established — the committee's decision determines whether the candidate meets the requirements for admission to the master's program.

Interview protocols of admitted applicants are kept in their personal files.

Table 1 – Interview Evaluation Criteria

| Criteria | Descriptors | Scores |
|-----------------------------|--|------------------------------|
| Motivation | Justification of reasons for applying to the program, choice of university, understanding of goals and prospects for professional and personal growth. | Sufficient / Insufficient |
| Research Competence | Proficiency in basic research skills necessary for scientific and analytical activities related to the educational program. | Sufficient / Insufficient |
| Creativity | Ability to propose unconventional solutions and demonstrate a creative approach to analyzing tasks and problems. | Sufficient / Insufficient |
| Communication Skills | Ability to clearly and logically express thoughts, justify one's point of view, and draw conclusions. | Sufficient / Insufficient |
| Committee Decision | | Sufficient / Insufficient |

4. Interview Questions

1. Name the main stages of railway track construction.
2. What are the requirements for the roadbed during the construction of railways?
3. List the types of artificial structures on railways and their functions.
4. Reveal the purpose and design features of bridges on railway lines.
5. What types of overhead track structure are used in modern practice?
6. What is part of the linear railway infrastructure?
7. Describe the methods of geotechnical surveys in the design of railways.
8. Explain the concept of slope and radius of a curve in tracing a railway line.
9. What modern technologies are used in the construction of railway infrastructure?
10. Tell us about the principles of stability of the roadbed and its strengthening.
11. How is drainage and drainage provided on railway tracks?
12. What is the difference between the overhaul of the track and the current maintenance?
13. List the regulatory documents governing the construction of railways in the Republic of Kazakhstan.
14. Culverts on roads and railways.
15. Construction of reinforced concrete superstructures.

5. Recommended literature

5.1 Basic literature

1. Tsytovich N. A. Soil mechanics. Moscow: Librocom Publishing House, 2013, 272 p.
2. Unaibaev B. Zh., Arsenin V. A., Mardenov Zh. A. and others. Foundation construction on saline soils. Ekibastuz : EITI Publ., 2012, 184 p.
3. Bokarev, S. A. Maintenance of artificial structures using information technologies. textbook / S. A. Bokarev, S. S. Pribytkov, A. N. Yashnov. - Moscow: UMTS po obrazovaniyu na zh / d transport, 2008. - 195s. - (Higher professional education).
4. G. M. Borovik. Textbook. Artificial structures on railways. Khabarovsk. 2013 DVGUPS Publishing House
5. Khasenov S. S., Kvashnin M. Ya., Abiev B. A., Bondar I. S. "Rules for the construction and maintenance of artificial structures in the railway transport of the Republic of Kazakhstan". 2015 No. 1288.
6. Ashpiz E. S. "Railway way". Moscow: 2013

5.2 Additional literature

1. **Fundamentals of technical operation** of transport equipment: a textbook for students, undergraduates and doctoral students / S. Zh. Kabikenov [et al.]. - Almaty : Evero, 2018. - 311 p.
2. Fundamentals of technical operation of transport equipment / S. Zh. Kabikenov, M. M. Kirievsky, V. V. Shalaev; Karaganda State Technical University. Karaganda: KSTU Publishing House, 2014. -261 p.
3. Көлік техникасын техникалық пайдалану негіздері. Оқу құралы/Коренов В. Т.- Almaty, 2011. - 110 p.
4. NTD "Rules for the construction and maintenance of artificial structures in railway transport of the Republic of Kazakhstan". 2015 No. 1288. Khasenov S. S., Kvashnin M. Ya., Abiev B. A., Bondar I. S.
5. Kadyrov A. S. Fundamentals of scientific research. Monograph / A. S. Kadyrov, I. A. Kadyrova. - Karaganda: KSTU Publishing House, 2015.

13. Vedernikov B.M., Methodological Guidelines for Practical Classes on "Train Interval Control Systems" (for Master's students in specialty 6M070200 – Automation and Control). Almaty, KazATK, 2010 – 44 p.

14. Vedernikov B.M., Methodological Guidelines for Independent Work of Master's Students under Instructor Supervision on "Train Interval Control Systems". Almaty, KazATK, 2010 – 40 p.