



**«APPROVED»**

**Member of the Board – Vice  
Rector for Academic Affairs  
NJC «Al-Farabi KazNU»**

**Kazmagambetov A.G.**

**2025**

**The Program of  
entrance exam for the group of educational programs of the Faculty of  
«Biology and Biotechnology» for bachelor's degree  
for foreign citizens to study on a paid basis**

**1.General Provisions**

1.1 The program was drawn up in accordance with the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018, No. 600 «On approval of the Model Regulations for admission to studies in educational organization, implementing educational programs of technical and vocational education» (hereinafter – the Standard Rules).

1.2 Entrance exams for bachelor's degree programs consist of two stages:

✓ At the first stage, foreign applicants take a test on general education subjects on the respective platform.

✓ At the second stage, they undergo testing to determine their proficiency level in the language of instruction.

1.3 The entrance exams are conducted in the form of testing for the following groups of educational programs:

- ✓ 6B05101-Biological Engineering
- ✓ 6B05102-Biology
- ✓ 6B05103-Biotechnology
- ✓ 6B05105-Genetics
- ✓ 6B05107-Microbiology
- ✓ 6B05108-Biomedicine
- ✓ 6B05109-Neuroscience
- ✓ 6B05110-Zoology
- ✓ 6B01502-Biology

1.4 In case an international applicant is unable to come to the University to take the entrance exam in the form of testing, they have the opportunity to take it online.

1.5 Selection for admission of international applicants to bachelor's degree programs through testing is assessed on a 100-point scale.

1.6 Based on the results of the entrance examination for the bachelor's level, a test result report is prepared in the prescribed format and signed by the management of the Department of Internationalization and Recruitment of International Students.

1.7 Appeals regarding the results of the testing are allowed within 24 hours.

1.8 An appeals commission is established by the rector of al-Farabi Kazakh National University for the period of exams. The appeals commission for admitting international applicants to KazNU includes employees of the Department of Internationalization and Recruitment (hereinafter referred to as the DIR) and the teaching staff of KazNU.

1.9. The decision on admission is reviewed by the competition commission for the enrollment of international applicants and is documented by a protocol through the "Salem office" system.

1.10. Retaking the entrance exam is not allowed.

## **2. Conducting the entrance exam in 2025**

2.1. The testing is conducted in Russian, Kazakh, and English, including questions on the relevant core subjects (biology/chemistry) within the framework of the general education school curriculum (bachelor's degree programs available on the website <https://welcome.kaznu.kz/en/26848/page>.)

### **2.2. Approximate List of Topics in Biology:**

1. The cell and its structure
2. Fundamental principles of cell theory and its significance
3. General characteristics and structure of bacteria
4. Human organ systems
5. Patterns of heredity and variability. Mendel's laws
6. Key characteristics of biogeocenosis
7. Chromosome theory of inheritance
8. The importance of animals in nature and human life
9. Biopolymers and their role in the cell
10. Cell organelles
11. Protein biosynthesis
12. Reproduction and individual development of organisms
13. Structure and functions of nucleic acids. Properties of the genetic code
14. Cell division as the basis of reproduction and growth of organisms
15. Adaptation of organisms to the environment and its causes
16. Metabolism and energy transformation in the cell
17. Mutations and their types. Breeding
18. Taxonomic classification of living organisms
19. Gene linkage and crossing over
20. Environmental issues

### **List of recommended literature for preparation:**

1. Taylor D., Green N., Stout W. Biology. In three volumes // Translated from English. - 2025.
2. Biology textbooks for grades 8-11 of the school curriculum.
3. Bilich G.L., Kryzhanovsky V.A. Biology for applicants to universities. Moscow: Phoenix. - 2024. 1076 p.
4. Turasheva S.K. Application of plant biotechnology: Monograph. Almaty: Qazaq University, 2020, 114 p.
5. Fundamentals of Microbiology. Eleventh edition. - 2021. - Edited by Talaro K.P.

## **3. Admission Criteria for the Entrance Examination for International Applicants to the Bachelor's Program on a Paid Basis**

3.1 Selection for admission of international applicants to bachelor's degree programs based on the testing format is evaluated using a 100-point system. For admission on a paid basis, the following results are considered: a minimum score of 65 points (65% or higher) in the first stage of testing and the results of the foreign language proficiency test (English – 70%, Kazakh – 50% or higher).

3.2 In the first stage of preliminary selection for bachelor's degree programs, applicants take a test that includes materials on general education subjects related to the chosen specialty. The test consists of 100 questions (20 questions per test, with each correct answer worth 5 points).

3.3 To successfully pass the test, an international applicant must correctly answer at least 13 out of 20 questions, which corresponds to 65 points or 65%, choosing any of the available test languages.

3.4 In the second stage of selection for bachelor's degree programs, applicants take a test to determine their foreign language proficiency:

- ✓ For programs taught in English, applicants must correctly answer at least 21 out of 30 questions (70%).
- ✓ For programs taught in Russian or Kazakh, applicants must correctly answer at least 15 out of 30 questions (50%).