



«APPROVED»

**Member of the Management Board,
Vice Rector for Operations
NJSC «Al-Farabi KazNU»**

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**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:

- ✓ 6B05102 – Biology
- ✓ 6B05103 – Biotechnology
- ✓ 6B05107- Microbiology
- ✓ 6B05101- Biological engineering
- ✓ 6B05105 – Genetics
- ✓ 6B08402 – Aquaculture and aquatic biological resources
- ✓ 6B05108 - Biomedicine

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 Following the entrance exam for bachelor's degree programs, a test results sheet is compiled in the established format, which is signed by the management of the Office of Internationalization and Recruitment of Foreign 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 Office of Internationalization and Recruitment (hereinafter referred to as the Office) 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 2024

2.1 Testing is conducted in Russian, Kazakh, and English languages, including questions on relevant subjects within the framework of the general education school program.

2.2 An indicative list of topics for entrance exams in the format of testing:

1. The cell and its structure
2. The main provisions of the cell theory, its significance
3. General characteristics and structure of bacteria
4. Systems of human organs
5. Patterns of heredity and variability. Mendel's laws
6. Key characteristics of biogeocenosis
7. Chromosomal theory of heredity
8. Importance of animals in nature and human life
9. Biopolymers and their role in the cell
10. Organelles of the cell
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 a basis for reproduction and growth of organisms
15. Adaptation of organisms to the environment, its causes
16. Metabolism and energy conversion in the cell
17. Mutation, their types. Breeding
18. Taxonomic classification of living organisms
19. Gene linkage and crossingover
20. Environmental issues

2.3 List of recommended literature for preparation:

1. Lisa Urry et al. (2016). Campbell Biology (11th ed.). Pearson. ISBN 978-0134093413.
2. Eric Simon (2019). Biology the core (3rd ed.) Pearson. ISBN 978-0134891514.
3. Bruce Alberts et al. (2022). Molecular Biology of the Cell (7th ed.). W.W. Norton & Company. ISBN 978-0393884821.
4. Biology textbooks for grades 8-11 of school curriculum
5. Turasheva S.K. Application of Plant Biotechnology: Monograph. Almaty: Qazaq University, 2020, 114 p.
6. Foundations in Microbiology. Eleventh Edition. – 2021. - Edited by Talaro KP.
7. Hugo and Russell's Pharmaceutical Microbiology, 9th Edition – 2023. – Edited by Brendan F.

3.Criteria for evaluating the entrance exam for admission to the bachelor's program for foreign citizens on a fee-paying basis:

3.1 Selection for admission of foreign applicants to bachelor's degree programs through testing is assessed on a 100-point scale. A minimum of 65 points is required for admission on a fee-paying basis to the bachelor's program.

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

3.3 To pass the test successfully, a foreign applicant must correctly answer at least 13 out of 20 questions, which is equivalent to 65%, regardless of the language chosen for testing.

3.4 At the second stage of selection for bachelor's degree programs, applicants take a language proficiency test:

✓ For programs with English as the language of instruction, applicants must correctly answer at least 21 out of 30 questions, which is equivalent to 70%.

✓ For programs with Russian or Kazakh as the language of instruction, applicants must correctly answer at least 15 out of 30 questions, which is equivalent to 50%.