

Development Plan of Software Engineering Department for 2021-2024

The development plan for the coming years is determined primarily by the main goal of the graduating department - the preparation of specialists in the field of computer science, particularly in Software Engineering, Machine Learning and Data Science, that are in demand on the professional labor market. In this regard, it is necessary:

1. Keep the level of annual enrollment of students for the 1st year at the level of 120-150 in the direction of "Computer Science". Average student enrollment for the last three years of the 2019-2022 academic year amounted to 200 students.
2. The percentage of graduates should be increased to 50% of the enrollment (currently, the percentage of 2018 graduates of the enrollment is about 35% of the enrollment for the 2021-2022 academic year).
3. Keep the employment of graduates in their specialty at a level of at least 95%. Currently, the employment of graduates in their specialty is about 85%.
4. To increase the competitiveness and attractiveness of the areas of training of bachelors and masters of the SE department in the context of a steady increase in competition between universities in Kazakhstan in the group of educational programs B057- "Information Technologies".
5. To improve the quality of teaching staff by increasing the number of teaching staff with practical experience in the development of applied programs and a degree in the relevant scientific specialty, as well as through participation in research and projects.
6. Attract foreign students who wish to study at the Department of SE in the direction of "Computer Science" in English due to the greater availability of information about the curricula and the available opportunities of the department to teach in English. Currently, one foreigner (Egypt) is studying in the second year of the master's program.
7. Expand the educational and methodological base (pay special attention to the preparation of masters) and actively use information and communication technologies in teaching.
8. Increase the number of undergraduates to 50 and doctoral students to 20 in the areas of "Software engineering" and "Machine Learning & Data Science". Currently, 27 undergraduates and 12 doctoral students study at the SE department.
9. For the preparation of bachelors and masters, as well as the implementation of academic mobility of students and teaching staff, use the potential and

opportunities for international cooperation within the framework of existing agreements, deepen and expand such cooperation.

10. To create educational programs in English, attract graduates of the Bolashak program and foreign specialists to the department. To motivate the teaching staff of the department to pass IELTS at 6.0 and above. To date, the teachers of the department have developed numerous methodological materials, video courses in English. The department has intensified work on the preparation of methodological materials in English.