

Ministry of Education and Science of the Republic of Kazakhstan
L.N. Gumilyov Eurasian National University
Faculty of Information Technology
Department of «Computer science»



GRADUATE MODEL

Master's programs in the educational program
7M01525 - Stem education

Nur-Sultan, 2021

Requirements for the level of education of graduates

The graduate model is a system of qualities of a graduate, the result of his activity. Thus, the graduate model is:

- a set of key characteristics of the graduate, which the applicant aspires to acquire;
- the universal image of a university graduate in the eyes of an employer;
- the image of the graduate as a brand of the university.

An ENU graduate is a person who has successfully completed the full course of the 7M01525- Stem education educational program and has mastered the necessary professional competencies, such as:

- the ability to put into practice the latest achievements in the field of pedagogical activity, expand and develop competencies in the field of scientific research and worldview;
- possess the skills of teaching modern pedagogical technologies and methods of teaching STEM and STEAM, analyze the state of continuity in teaching computer science, effectively perform managerial functions based on theoretical knowledge and practical skills, experience, individual personal qualities, motivated desire to achieve goals and solve tasks;
- to form professional competencies of undergraduates in the field of STEM education, to develop methods for solving non-standard tasks and new methods for solving traditional tasks, to apply elements of STEM and robotics in professional activities, to predict the results of scientific research;
- ability to solve practical issues of planning, design, development, integration and operation of IoT-class information systems. The ability to analyze the information received, be able to develop new algorithms, process large amounts of information based on data virtualization technology and create cloud storage, build machine learning systems;
- ability to independently master new research methods, to change the scientific profile of their professional activities;
- conclusions on the topic of the dissertation research, to substantiate an integrated combination of justification for solving the tasks, novelty, practical and theoretical significance of the work.

All the necessary qualification requirements according to the domestic standards of higher and postgraduate education, as well as taking into account the Dublin descriptors, are synthesized in 7 qualities of the university graduate model.

The competencies acquired in the process of mastering the educational program are prescribed in section 2 of the Passport of educational programs "Map/ profile of competencies".

Considered at the meeting of the Department, Protocol No. 10 of 01.05.2021

Head of the department
Computer Science



Serik M.