«Approved» Dean of the Faculty of Information Technologies NJSC «L.N. Gumilyov Eurasian National University» Seilov Sh.Zh. «<u>14</u>»<u>61</u>2021

Development plan of the educational program "7M06112 - Artificial Intelligence Technologies" for the years of 2021-2025

| Nº | Name of the strategic direction, goals and objectives | ection, goals and strategic direction persons | Expected results | | Implementation period | | | | |
|-----|--|--|--|---|-----------------------|-----------|-------|------|------|
| 1 | 2 | 3 | 4 | 5 | 2021 | 2022 | 2023 | 2024 | 2025 |
| | | | U - INNOVATION | UNIVERSITY" | | | | | |
| | | al 1. Ensuring the competitiveness | | | t the inter | rnational | level | | |
| 1.1 | TASK 1.1. To improve the quality and effectiveness of scientific researches | Involvement of students in scientific and research works (SRW) under the guidance of leading scientists of the department within the framework of the implementation of scientific projects of grant funding for the scientific cluster «Mathematics and Information Technologies» | Head of the department. Persons responsible for the department's SRW, SRWM. Teaching staff | The increase in the proportion of masters involved in SRW | | + | + | + | + |

| 1 | 2 | 3 | 4 | 5 | 2021 | 2022 | 2023 | 2024 | 2025 |
|-----|--|---|--|--|------|------|------|------|------|
| 1.2 | TASK 1.1. To improve the quality and effectiveness of scientific researches | Organization of scientific clubs for students | Head of the department. Persons responsible for the department's SRW, SRWM. Teaching staff | The increase in the number of scientific cubs and conditions for choosing from the fields of interest and revealing the creative abilities of students. Improvement of the level of students training and acquisition of new competencies | - | + | + | + | + |
| 1.3 | TASK 1.1. To improve the quality and effectiveness of scientific researches | Participation of students in scientific conferences (university, national, international), competitions of scientific papers, in the presentation of the results of their own researches at scientific seminars of the department | Head of the department. Persons responsible for the department's SRW, SRWS. Teaching staff | The improvement of the level of students training and acquisition of new competencies | - | + | + | + | + |
| 1.4 | TASK 1.1. To improve the quality and effectiveness of scientific researches | Publications of students' research results in domestic and foreign scientific publications | Academic supervisors of students | The increase in the proportion of joint publications of teaching staff and students of the department | - | + | + | + | + |

| 1 | 2 | 3 | 4 | 5 | 2021 | 2022 | 2023 | 2024 | 2025 |
|-----|-------------------------|--------------------------------------|------------------------|--------------------------|-------------|-----------|------|------|------|
| 1.5 | TASK 1.3. To | Expanding the practice of | Head of the | The increase in the | + | + | + | + | + |
| | modernize and | using the digital scientific | department. | proportion of | | | | | |
| | digitize the scientific | platform (virtual laboratories, | Teaching staff | educational sessions | | | | | |
| | infrastructure. | digital services of the | | and scientific | | | | | |
| | | university infrastructure, | | researches carried out | | | | | |
| | | digitized databases of | | with the use of digital | | | | | |
| | | educational and scientific | | platforms | | | | | |
| | | publications) | | | | | | | |
| | | | ne contribution of sci | ence to the real economy | sector | 1 | | | |
| 1.6 | TASK 2.2. To ensure | Involvement of students in the | | The increase in the | - | + | + | + | + |
| | the effectiveness of | development and | | number of young | | | | | |
| | the activities of | commercialization of start-up | | specialists in the | | | | | |
| | commercialization | projects of students, | | acceleration program | | | | | |
| | structures | postgraduates and doctoral | | of the Youth Business | | | | | |
| | | students, as well as in the | | Incubator for the | | | | | |
| | | implementation of SRW of the | | development, | | | | | |
| | | department with business | | implementation of | | | | | |
| | | structures and enterprises of | | projects and | | | | | |
| | | the city and the country | | subsequent entry into | | | | | |
| | | | | potential markets for | | | | | |
| | | | | goods and services | | | | | |
| | | rategic direction 2. Academic ex | | | | | | | |
| | | Goal 1: International orientation or | | | of training | g personn | el | | |
| 2.1 | TASK 1.1. To ensure | Development and | Head of the | Placement of digital | + | + | + | + | + |
| | the quality of training | implementation of innovative | department. | educational resources | | | | | |
| | personnel | technologies in the educational | Persons | and massive online | | | | | |
| | | process, including distance | responsible for | training courses | | | | | |
| | | learning technologies, creation | the department's | (MOOCs) on the | | | | | |
| | | of open online courses and | TMW (training | distance learning | | | | | |
| | | educational resources in digital | and methodical | platform | | | | | |
| | | format | work). | | | | | | |
| | | | Teaching staff | | | | | | |

| 1 | 2 | 3 | 4 | 5 | 2021 | 2022 | 2023 | 2024 | 2025 |
|-----|--|---|--|--|------|------|------|------|------|
| 2.2 | TASK 1.1. To ensure the quality of training personnel | Training teaching staff new directions in science and technology, with the possibility of obtaining international certificates, including professional certificates from IT vendors | Head of the department. Persons responsible for the advanced training of Teaching staff. Personnel Management Department | Professional development of teaching staff, certification of teaching staff | + | + | + | + | + |
| 2.3 | TASK 1.1. To ensure the quality of training personnel | Conducting competitions for filling vacant positions in the department, hiring based on competitive selection and an objective approach to assessing compliance with requirements on education, professional competencies of candidates, practical experience of employees | Head of the department. Personnel Management Department | Teaching staff that meets the qualification requirements for the implementation of educational activities on the Master's educational program in the field of ICT | + | + | + | + | + |
| 2.4 | TASK 1.2. To guarantee the quality of educational programs at the international and national level. | Involvement of academic experts from partner universities (Kazakhstani and foreign) in the examination of the educational program (EP), catalogues of disciplines and syllabuses of disciplines. | Head of the department. Persons responsible for the international cooperation. Persons responsible for the development of Educational programs in the department. Teaching staff | Harmonization of EP content with similar programs of the countries of Bologna process | + | + | + | + | + |

| 1 | 2 | 3 | 4 | 5 | 2021 | 2022 | 2023 | 2024 | 2025 |
|-----|--|--|---|---|------|------|------|------|------|
| 2.5 | TASK 1.2. To guarantee the quality of educational programs at the international and national level. | Involvement of experts from the government organizations and companies and professional associations of the IT industry in the examination of the educational program, catalogs of disciplines and syllabuses of disciplines. | Head of the department. Persons responsible for the practice and employment of students, for the development of Educational programs in the department. | Harmonization of EP content with the National and Sectoral Qualifications Framework, Professional Standards and employers' recommendations | + | + | + | + | + |
| 2.6 | TASK 1.2. To guarantee the quality of educational programs at the international and national level. | Ensuring the quality of the educational program through compliance with internal standards and their recognition at the international level through certification and accreditation procedures in international specialized agencies | Head of the department . Working group on preparation for accreditation and audits. | Educational program that has passed the international accreditation and certification | + | + | + | + | + |
| 2.7 | TASK 1.2. To guarantee the quality of educational programs at the international and national level. | Ensuring the quality of the educational program through compliance with internal standards and their recognition at the republican level through participation in the national ratings (NCE "Atameken", IAAR, etc.) | Head of the department . Working group on preparing information for Ratings | The results of the ratings of universities and EP | - | + | + | + | + |

| 1 | 2 | 3 | 4 | 5 | 2021 | 2022 | 2023 | 2024 | 2025 |
|-----|--------------------------------------|---|------------------------------|---|---------|-------|---------|--------|------|
| 2.8 | TASK 1.2. To | Participation of students in | Head of the | The increase of the | - | + | + | + | + |
| | guarantee the quality | competitions, master classes, | department. | portion of graduates | | | | | |
| | of educational | olympiads, certification | Persons | who have confirmed | | | | | |
| | programs at the | courses held by the | responsible for | their qualifications, | | | | | |
| | international and | government organizations, IT | SRWS and | employed in the first | | | | | |
| | national level. | companies in order to prepare | employment in | year after graduating | | | | | |
| | | graduates to confirm their | the department | from a higher | | | | | |
| | | qualifications and ensure their | | educational institution | | | | | |
| | | employment. | | on a state educational | | | | | |
| | | | | order | | | | | |
| | | | | | | | | | |
| 20 | | Combosting a suggest of | Dementaria | The detine and | | | | | |
| 2.9 | TASK 1.2. To | Conducting a survey of students in order to determine | Department of | Updating and | + | + | + | + | + |
| | guarantee the quality of educational | the degree of satisfaction with | education quality assessment | adjusting the content of the EP, catalogs of | | | | | |
| | | - | assessment | . | | | | | |
| | programs at the international and | the quality and content of the educational process | | disciplines, syllabuses of disciplines, teaching | | | | | |
| | national level. | educational process | | methods based on the | | | | | |
| | national level. | | | analysis of masters | | | | | |
| | | | | survey results | | | | | |
| | Strategic direction | I 3. Internationalization and incre | esing international | 2 | - INTER | NATIO | NAT IIN | JIVEBS | TV" |
| | Strategic uncetion | | | fic and educational activit | | | | | |
| 3.1 | TASK 1.2. To ensure | Attracting foreign scientists | Head of the | The increase in the | - | + | + | + | + |
| | the development of | and teachers to lecture on the | department. | portion of foreign | | | | I | I |
| | academic and | disciplines of the educational | Person | professors | | | | | |
| | managerial resources | program, including from the | responsible for | 1 | | | | | |
| | based on the | world's leading universities | the international | | | | | | |
| | international | (TOP-200) | cooperation in | | | | | | |
| | cooperation. | | the department. | | | | | | |
| | | | Teaching staff | | | | | | |

| 1 | 2 | 3 | 4 | 5 | 2021 | 2022 | 2023 | 2024 | 2025 |
|-----|--|---|-------------------------------|---|---------|---------|---------|--------------|------|
| 3.2 | TASK 1.2. To ensure | Training of competitive | Head of the | The increase in the | - | + | + | + | + |
| | the development of | personnel in the international | department. | number of lecturers | | | | | |
| | academic and | labor market: increasing the | Person | teaching in English, | | | | | |
| | managerial resources | academic mobility of teaching | responsible for | the number of | | | | | |
| | based on the | staff and students, opening | the international | disciplines taught in | | | | | |
| | international | multilingual groups | cooperation in | English, the number of | | | | | |
| | cooperation. | | the department. | masters studying in | | | | | |
| | | | Teaching staff | English | | | | | |
| 3.3 | Strategic directio | n 4. Creation and modernization | | | | - DIGIT | CAL UNI | VERSI | ГҮ" |
| | | | | cture ecosystem of the uni | versity | | | | |
| 4.1 | TASK 1.1. To create a safe and comfortable | Formation and expansion of the modern educational and | IT Department. Head of the | The increase in the number of specialized | + | + | + | + | + |
| | environment for | laboratory base for the | department. | training laboratories | | | | | |
| | students | implementation of the | Educational | and computer | | | | | |
| | | educational process and SRW | Support | classrooms | | | | | |
| | | in compliance with sanitary | Personnel of the | | | | | | |
| | | and epidemiological standards, | Department | | | | | | |
| | | equipping classrooms with | 1 | | | | | | |
| | | multimedia equipment | | | | | | | |
| | | 1 1 | | | | | | | |
| 4.2 | TASK 1.1. To create a | Providing support to students | Head of the | The increase in the | + | + | + | + | + |
| | safe and comfortable | in the provision of places for | department. | portion of students | | | | | |
| | environment for | collective use (openspaces, co- | Curators of | satisfied with the | | | | | |
| | students | working sites, etc.), removing | Academic groups | conditions of study | | | | | |
| | | barriers to meet basic | | and living | | | | | |
| | | educational needs for inclusive | | | | | | | |
| | | education. | | | | | | | |

| 1 | 2 | 3 | 4 | 5 | 2021 | 2022 | 2023 | 2024 | 2025 |
|----------|--|--|--|---|------|------|------|------|------|
| 1 4.3 | 2 TASK 2.3 . To create an intelligent learning system Smart.Learning.ENU | 3 To use the smart learning system Smart.Learning.ENU for an individual educational trajectory of students of all levels using LMS, smart | 4 Goal 2. Creating di Head of the department. Teaching staff | The increase in the number of electronic resources (including intelligent MOOCs introduced into the | + | + | + | + | + |
| | levels using LMS, smart MOOCs, digital library and intelligent assessment of learning outcomes. | | educational process). The improvement of the effectiveness of learning outcomes assessment | | | | | | |

The development plan of the educational program "7M06112 - Artificial Intelligence Technologies" was developed according to the development strategy of the NJSC "L.N. Gumilyov ENU" for the years of 2021-2025, Development Strategy of the Faculty of Information Technologies until 2024, Development Strategy of the Department of Information Security until 2025.

Considered at a meeting of the Department of Information Security, Record No. 6.1 « 18 » _____ 2021

Approved by the Council of the Faculty of IT, Record $N_{\underline{0}} \neq \underline{(17)}_{\underline{02}} = 02 = 2021$ Head of the Department of Information Security $\underline{-44}_{\underline{02}} = Satybaldina D.Zh_{\underline{02}} = 02 = 2021$